TRAVELLING GUIDE FOR SCHOOL-COMMUNITY COLLABORATIONS FOR SUSTAINABLE DEVELOPMENT

Lifelong Learning Programme

CoDeS
Schools and Communities - Working together on Sustainable Development

Imprint

TRAVELLING GUIDE
Practitioners guide to school and community collaborations for sustainable development

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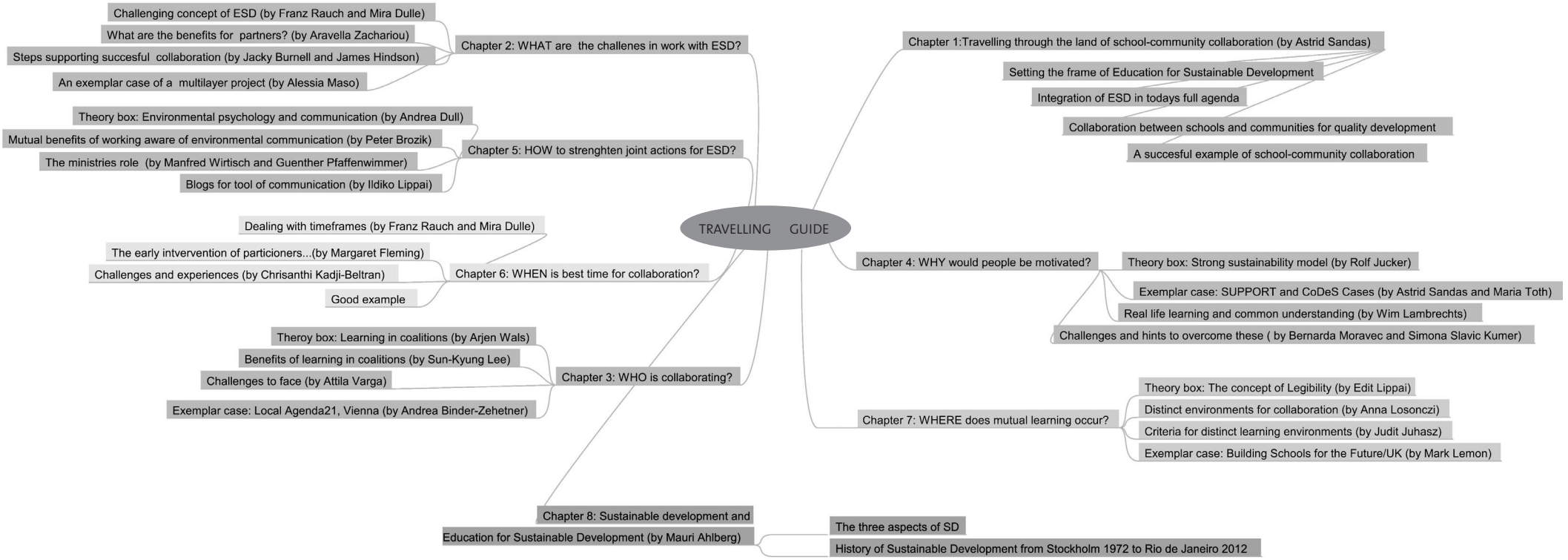
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Introduction

A good travelling guide draws a general picture of a landscape giving an overview of the cultural context of the place, while highlighting some interesting spots. It will not tell readers where to go: instead, it will inspire individual discovery and further inquiries. A good travelling guide might raise the desire for adventure in those who have never travelled or in others who have thought to have already travelled enough. A good travelling guide serves a wide range of readers, with miscellaneous interests. A good travelling guide is like a companion when one starts off the journey, and it provides a kaleidoscope of experiences to reflect upon when one arrives. Our Travelling Guide is meant to both initiate new collaborations and encourage those already on the way. It will not give recipes or best practices. Instead, hopefully it will inspire readers to reflect on some aspects of the learning journey schools and communities take when engaging in collaboration for sustainable development.

This book is organized around basic questions arising during the collaboration: what, who, why, how, when, where. These chapters each include a **Theory box** highlighting one specific point from research that could probably enhance collaboration practice, **Benefits** and **Challenges** that elaborate on practical details to consider, accompanied by an **Exemplar case**, which presents experience from collaborations within CoDeS Multilateral Network.

Overarching views and complex experiences are collected in the **Introduction** by the leader of a former international project, while **Basics** provide theoretical background for those who are interested to learn more. Suggested reading might inspire further inquiries, while Leading questions are meant to foster reflection.

As opposed to many handbooks, our Traveling Guide also invites the reader to be reflective both before and after taking actions. At several points the richness of the experiences of the CoDeS Multilateral Network by its partners are apparent. As our collaboration partners represent universities, municipalities, NGO's, teacher networks and private companies too, we hope to provide food for thought for practically anyone dedicated to reflect about collaborations for sustainable development.

Chapter one

Travelling through the landscape of school–community collaboration for sustainable development

Astrid Sandås, Norway

1. Setting the Education for Sustainable Development framework

"We hold the future in our hands, together, we must ensure that our grandchildren will not have to ask why we failed to do the right thing, and let them suffer the consequences."

UN Secretary-General Ban Ki-moon, 2007

Sustainable development is the overarching paradigm of the United Nations. The concept of sustainable development was described by the 1987 Brundtland Commission Report as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". In order to reach such development there is a need for changes in our way of living, changes in the way we take care of our common resources and how production is distributed and its development in harmony with nature. There are four dimensions to sustainable development – society, environment, culture and economy – which are intertwined, not separate. Sustainability is a paradigm for a future in which environmental, societal and economic considerations are balanced in the pursuit of an improved quality of life. For example, a prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clean air for its citizens.

Education is a motor for change. That is why in December 2002, the United Nations General Assembly, through its Resolution 57/254, declared a Decade of Education for Sustainable Development (DESD, 2005-2014). The strategy for Education for Sustainable Development as described in DESD, is underpinned by an ethic of solidarity, equality and mutual respect among people, countries, cultures and generations. The UN Decade of Education for Sustainable Development is about engaging the world's educational systems to work for a more sustainable future. Many paths to sustainability (e.g. sustainable agriculture and forestry, research and technology transfer, finance, sustainable production and consumption) exist and are mentioned in the 40 chapters of Agenda 21, the official document of the 1992 Earth Summit.

Education is one of these paths. Education alone cannot achieve a more sustainable future; however, without education and learning for sustainable development, we will not be able to reach that goal.

The aim of ESD is empowering students to gaining the competences needed to participate in the work for a sustainable future. This includes understanding the systems of nature, economics and society in which we all live and the complex interactions among these systems. But ESD goes further and develops the students' understanding of change at many levels; personal, community and society. Finally, developing a sense of self; the own value and role as responsible and active citizens. In order to gain those competences the students need to develop critical thinking and problem solving skills so they can be confident in addressing the dilemmas and challenges of sustainable development.

ESD has to be values driven: It is crucial that the assumed norms – the shared values and principles underpinning sustainable development – are made explicit so that they can be examined, debated, tested and applied. The values of ESD are embedded in the Earth Charter, a declaration of fundamental ethical principles for building a fair, sustainable and peaceful global society in the 21st century.

The Earth Charter is a product of a decade-long, worldwide, cross-cultural dialogue on common goals and shared values. The project began as a UN initiative, but was carried forward and completed by a global civil society movement. It was launched as a people's charter in 2000 by the Earth Charter Commission.

The Earth Charter sets out fundamental principles, such as:

- Building democratic societies that are fair, participatory, sustainable and peaceful and securing the Earth's bounty and beauty for present and future generations;
- Protecting and restoring the integrity of the Earth's ecological systems;
- Ensuring that economic activities and institutions at all levels promote human development in an equitable and sustainable manner;
- Affirming gender equality and equity as prerequisites to sustainable development;
- Providing transparency and accountability in governance, inclusive participation in decision-making and access to justice;
- Integrating the knowledge, values and skills needed for a sustainable way of life into formal education and lifelong learning.

Education for Sustainable Development (ESD) building on the ethical principles of the Earth Charter, aims to give every human being the ability to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future. ESD means including key sustainable development issues into teaching and learning; for example, climate change, disaster risk reduction, biodiversity, poverty reduction, and sustainable consumption. It also requires participatory teaching and learning methods that motivate and empower learners to change their behaviour and take action for sustainable development.

2. Integration of Education for Sustainable Development in todays' crowded curricula

Bearing in mind that the curriculum in most countries is overloaded as it is, how can we ask the schools to take on board another subject?

ESD is a fairly new subject or a new dimension that has to be added to already existing subjects. And we have to ask ourselves what the core of education is, and how to bring about effective learning, how to develop the students competences in an effective way? And what competences do students in tomorrow's world need to achieve? The aim of ESD education is developing the student's action competence for his or her role as an agent for change.

The scientists in the OECD project "Innovative Learning Environments" (ILE) (OECD, 2014) argue that there are empirical evidences that productive learning is featured by active involvement, social participation and meaningful activities. New information has to be related to prior knowledge. The students need to be engaged and should be urged to be reflective. The aim has to be towards understanding rather than memorization. Teaching has to help students learn how to transfer knowledge and the students need to have time to practice. Furthermore it is said that learning in some sense is always constructive. In an effective learning process individuals are active participants in their own learning process. The learning process has to occur in a context and that effective learning is not a purely solo activity, individual knowledge construction occurs throughout processes and interaction, negotiation and cooperation.

A powerful innovative learning environment is characterized by a good balance between discovery and personal exploration on the one hand and systematic instruction and guidance on the other, always taking into account individual differences in abilities, needs and motivation among learners. The challenge is that the students

have to construct their knowledge through activities, active participation, in the local community and in the classroom. They have to cooperate, discuss and report their findings if they are to develop action competence. We have to admit that learning is hard work; there is no easy way to develop ESD competence.

ESD consequently promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way, and as such ESD requires far-reaching changes in the way education is often practiced today. On the other hand, ESD can be recommended as an effective teaching tool to develop student competences. Often one thinks that learning is a question of merely giving students new knowledge, and programmes are constructed in an instrumental way so that they can easily gain insight. Many programmes are developed that way and it is tempting to continue to follow this track. Arjen Wals, UNESCO Chair at the Wageningen University put it this way: *"the deeper the planetary sustainability crisis, the more tempting it is to adopt more instrumental approaches because people come to think that we are running out of time and need to act now. Yet the flight to instrumentalism might keep us from developing a more resilient society with a planetary conscience."* (UNESCO, 2009b). Scientists in the Innovative Learning Environments project argue that students will not develop the needed ESD competences with what is called an "instrumental approach".

3. Collaboration between schools and communities for quality development

ESD aims to strengthen the capacity of schools to develop the competences (knowledge, skills and attitudes) their pupils will need as active and responsible citizens, to create a sustainable future. Schools, then, need to re-examine the objectives of the education they offer in the light of sustainability. New kinds of learning arenas and –methods have to be designed to better achieve the desired learning outcomes (UNESCO, 2009a)[1].

The midterm review of the United Nations Decade for ESD (UNESCO, 2009b)[2] points to the effectiveness of ESD collaboration to expand the range, quality and effectiveness of ESD. The review says:

> *"Capacity-building in multi-stakeholder social learning and the facilitating and strengthening of networking between schools, educational institutions/ organizations and other potential partners in ESD at a local, national and international level, appears crucial".* (page 67)

1 UNESCO, 2009. Framework for the UN DESD International Implementation Scheme. UNESCO, Paris.

2 Wals, A., op.cit.

Also in the Bonn declaration[3] (World Conference on ESD, 2009) collaboration is recommended.

Collaboration in ESD as in other arenas has proven to be challenging for schools, both in terms of the school's internal dynamics and in terms of the school's ability to cooperate with external partners. It is also a challenge for various sectors in society, both locally and nationally. Cooperation is essential for sustainable development, so learning to cooperate should be a core part of education for a sustainable future. The OECD project "Innovative Learning Environments" revolves around the idea of creating innovative arenas for learning through collaboration. The project is founded on a review of pedagogical research on experiential learning approaches, learning processes and outcomes. "Situated learning" and "service learning" refers to learning in collaboration with actors in the community.

Billing and Furco[4] define service learning as "an experiential learning pedagogy in which education is delivered by engaging students in community service that is integrated with an organized school curriculum. Service-learning is premised on providing students with contextualized learning experiences that are based on authentic, real-time situations in their communities." (Billing, S.H. and Furco, A. eds., 2002, page 23) Service-learning, even though it lacks the sustainability dimension, is pedagogically speaking a very close relative of ESD collaboration.

Involving pupils in real science projects focusing on the local environment in their local communities is an excellent way for pupils to learn how science and research actually work. This can help close the gap that too often exists between schools and their communities, and between schools and research institutions.

Local management agencies and research institutions are constrained by resources and it is beyond their capacity to monitor developments in every local community continuously or answer any scientific questions that arise. Collaboration with schools can multiply the capacity of research institutes. Schools can make valuable scientific observations as part of their regular educational work. Research institutes can contribute by providing scientific methods simple enough for schools to use, but at the same time reliable enough to be useful for scientists and managers in their work. Teachers and/or pupils also need training to use these methods. The collaborating institutions can also contribute up to day and in-depth knowledge of

3 World Conference on ESD. 2009. Bonn Declaration. German Commission for UNESCO.

4 Billing, S.H. andFurco, A. eds., 2002

the issues at hand, given their extensive local experience and/or research activities. In this ideal school-community-research collaboration, schools gain a practical purpose for their science education, while local communities gain access to scientific capacity to be applied to local issues and in the longer term, an engaged citizenry. Research institutes get a wider public presence and access to the valuable data generated by schools. All stakeholders have their role and benefits and they each contribute in a particular way to sustainable development. But they do it with their fellow collaborators.

4. Successful cases of school-community collaboration

While ESD has a clear mandate in most countries, the education system itself has not yet responded adequately to mainstream ESD. The CoDeS –multilateral network[5] is a further development from the former EU Comenius Life Long Learning network programme "SUPPORT: Partnership and Participation for a Sustainable Tomorrow," which received EU funding for the period 2007-2010.

The Support-consortium realized that to successfully develop the students' ESD competence, guidelines had to be adapted to the students' individual abilities and to relevant local sustainability issues. The challenge was to develop an instrument taking into account the features of ESD on the one hand but avoiding a traditional ready-made easy to use teaching package. The aim was to develop an instrument where the schools and students were allowed to create their own learning situation, to have enough space for local freedom and creativity. The challenge was to support an "emancipatory" approach rather than be "instrumental".

The consortium therefore developed a school campaign called *"CO_2nnect: CO_2 on the way to school"* on the topic of sustainable transport Schools were 'emancipated' to collaborate and create partnerships through the web-based network with other schools, researchers, or organizations in their community.

In chapter 4 'WHY' you will find a detailed report of the CO_2nnect campaign. ICT tools supported the cooperation between the partners, without being too restrictive. In fact there have been more than 35,000 participants so far. Because of this success the CoDeS consortium with help from the relevant `SUPPORT' partners decided to re-launch the campaign in 2014. This is to have a special focus on community collaborative projects.

5 The CODES project page: http://www.comenius-codes.eu

Chapter two: what

What challenges are situated in the concept of Education for Sustainable Development?
What are the challenging issues that could become turning points in the development of the school or the community?

A brief introduction to the ideas underlying the concept sustainable development is sketched in the **‚Theory Box'**: readers who wish to find out more can refer to the last chapter of the Travelling Guide (Chapter 8: Educating for Sustainable Development). These ideas are meant to encourage participants to address complex issues and find ways to integrate local knowledge in solving them.
In the section **‚Benefits'** a whole list of 'gains' are provided that originate from the key concepts of sustainability. Schools and communities will find well-established motives illustrated by an example from Cyprus.
‚Challenges' are introduced and reflected on via problems experienced in an international project and its consequent learning journey.
The **‚Exemplar Case'** introduces how diverse issues and complex problems can be addressed via different approaches. These highlight the issues found when Sustainable Development 'visions' come from different starting points.

Theory box

Franz Rauch and Mira Dulle

As early as 1987, the World Commission for Environment and Development (WCED) defined the concept of 'sustainable development' as a *"development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Hauff 1987, 43).* This also implies that environmental conservation is no longer seen as a preferred means of preserving resources for future generations, a tenet held predominantly and unilaterally by the Western world. A fair and equitable distribution of capital and natural resources, and of living and development opportunities, among all people in the world was the ambitious objective of the world community.

Sustainable development, however, is neither a general guideline, nor a clearly defined objective. The concept tells us little about how justice should be achieved.

"The concept of sustainable development - as this document suggests – is not a simple one, and there is no road map to prescribe how we should proceed" (UNESCO, 1997, Preface). The way to reach that aim needs to be re-negotiated for any given situation. All relevant stakeholders should be included.

A sustainable economy and society can only be the outcome of a social process of searching, learning and design (Rauch 2004). The ability to contribute different conceptions and interests constructively will be of crucial relevance (Minsch 2000). Sustainable development can serve as a guiding principle and framework for reflection on this process of searching. Competences to shape the environment are paramount (De Haan 2008; Rauch & Steiner 2013).

The different interpretations to which this guiding principle lends itself give a broad range of points to tie in with. The term's lack of precision can make for a highly creative, diverse, yet dynamic field, but also one with a definitive orientation and direction. In open societies, open notions are likely to meet with an echo, and this is precisely what we are seeing in the current debate on sustainable development. Sustainable development forms a favourable backdrop for reacting to the complex issues which modern-day society is facing in an adequate, manageably complex and not over-simplifying manner (Rauch 2004).

The concept of sustainable development (SD) should not limit itself to more pessimistic stock-taking of global problems, but present an optimistic approach. It is to present a realizable vision of a desirable future. Society as a whole should therefore participate in creating such a vision for tomorrow, which takes into account the viewpoints and interests of all social groups and tries to balance them. As a regulative idea the objective of sustainable development should serve as a guiding principle which spells out the direction of where to go, but not the ways and means how to reach that aim. The aim should be a socially responsible, economically just and ecologically viable development that embraces humanity as a whole and includes opportunities for future generations to thrive (Steiner 2011). This claim presents novel and ambitious challenges to individuals, as well as to society at large. Here, education is perceived as the master key to achieving a sustainable society, which must be geared to social visions and cannot be detached from society.

Educating for sustainable development (ESD) gives social concerns the appearance of social policy visions, an idea of a better world to which it can be directed. *"Education is about hope and therefore about strong and existential feelings of future"*, (Oelkers 1990, p 1) maintained.

Benefits

Aravella Zachariou

What are the benefits for partners?

The benefits of ESD through school-community collaboration are diverse and multilayer. All improvement of the community and the school will lead to an equivalent improvement of life quality and that this can only be realised through collective efforts. Additionally, these efforts do not concern solely the environmental protection and nature conservation but also the development of solidarity, ecological integrity, and democracy.

The founding values of any collaboration include respect, responsibility, equity, participation, the right to live and principally the right to shape ones' local environment in a creative, constructive and especially sustainable way. Working in collaboration is supporting these values and contributes therefore to the improvement of school and community.

1. School improvement: Experiences from Cyprus

Particularly for ESD, the collaborations were based on the vision of establishing a new framework of learning through school's opening to the community and through using outdoor settings in school and the community as principal educational and pedagogical tools. This process resulted in a promotion of intergenerational communication and interaction, created effective communication networks amongst various key actors and established contemporary pedagogical approaches that can assist the assimilation of the fact that local action is the most powerful starting point for global action and shaping the sustainable world for which we are all responsible and have a role to play.

In Cyprus, LivadiaPrimary school chose to explore the conservation of local products. They focused on interconnecting environmental sustainability (conservation of the local wetland as a source of raw material - straw - that local population uses for handcrafts) with social and economic sustainability (development of local trade of straw made handcrafts, conservation and

protection of traditional professions and skills, economic sustainability of the area and social cohesion) and cultural sustainability (arts, traditional songs and dances inspired from straw as the dominant local vegetation).

2. Improvements in communication among the community:
Also the community-based projects support the flow of information and experiences that could be used as valuable tools for promoting a sustainable living in the community (Zachariou and Symeou, 2008). Through linking school and community, ESD can translate scientific evidence in praxis and engage students and community members sharing problems and developing solutions in order to making them responsible for their lives. Also, school-community collaboration can provide the possibility to getting integrated into the learning process, finding action oriented information and getting active in long term developments. Project partners learn especially on whether and how to respond, through practical hands on experiences, and activism that will allow to them to see how their own local, personal actions will contribute to their local picture (Tytler, 2007; Coffey, 2008, p.5)

Challenges

Jacky Burnell and James Hindson

Each collaboration has a unique learning journey that includes also challenges. But these challenges may serve as a turning point that can eventually result in systemic changes at levels that partners originally have not even hoped for. Our example will highlight how a decision on the topic of the project may result in such change.

Nature for Care is an intergenerational project that involves older people in a community working with young people in schools to learn together - with the focus of that learning being sustainability! The Nature for Care approach started life as a series of projects managed by Veldwerk – an environmental education NGO in the Netherlands - which developed activities that brought young and old together in the community to learn about nature.

Clarifying questions first!
When this programme was spread across Europe through an EU funded Life Long Learning project, the first question the six partners asked at our inception meeting was "what exactly is the focus of our project – is it nature, or is it sustainability?"

A second question that followed was "and if it's sustainability – what do we mean by sustainability?" As a team starting out on a project journey together we thought that these were important questions, and questions that are not always asked at the start of a project. It is a challenge to reserve enough time for this debate, being willing to deal with open questions. The time spent on clarifying questions is well spent.

Growing project ideas
We agreed to take a sustainability approach to our project activities in each country. Of course, learning about nature together is important, but we felt that older people had so much to share with younger people that would support learning about a broader approach to sustainability and this proved to be the case. In the UK activities related to food production and consumption for example, highlighted how the different generations approaches issues such as food waste, packaging, local and organic food. Young people were generally shocked to know how much they wasted and how far their food had travelled. Other activities involved young and old looking together at how their local community had developed over time and involved writing to local politicians about issues of common concern.

Scaling up the project idea!
There was more debate between the partners about the second question largely because this was not a question that partners had considered in a project context before. Our conclusion was that we all wanted to go further than we were going and we were all inspired by a workshop that compared the current wasteful systems that we are all part of with an alternative approach which didn't just reduce waste or recycle waste, but that aimed to get rid of waste altogether through keeping all the resources we used in a closed loop. We thought that this new idea that was worth exploring more in our Nature for Care activities and using as a basis for our thinking.

To begin with this sounded a bit theoretical but then we began to think more and the ideas helped us to look at some of our activities in a different light. An activity we planned in the UK on recycling plastic bags turned into something that questioned the need for any plastic bags at all and encouraged the use of bags made from organic materials that could be used again and again and could be composted at the end of their useful life! Activities in the Czech Republic looked at local food traditions, and the importance of local foods for the community economy – as well as growing your own food. Both these examples might appear simplistic but the

partners in Nature for Care realize that changing systems is a challenge and that we are at the start of this process.

Dealing with open questions and the attitude of openness towards new developments are challenges, which are relevant for the success of a project.

Exemplar case

Alessia Maso

The concept of sustainability is based on the fact that all human life exists within the limitations of planet Earth, or the biosphere where humankind lives, including all societal functions. Ethics, values and methodology directly support sustainability because people are part of the ecological systems of the biosphere.

In accordance with this concept of sustainability, CoDeS cases are focused on collaboration in order to achieve environmental goals as well as in improving social skills and the development of communities.

In some cases the problem itself seems to be very complex and affected by so many external factors, that is seems to be difficult to choose the right targets to reach. In these cases, multiple aims and measures might improve the situation. In an Italian Alps Valley, located within the Natural Park of Po River, the local school is carrying on a structured project to prevent depopulation. The valley's sense of identity is weak, because people are convinced that they 'have less' than people from the city. Besides Occitan as a language (spoken by the local communities) has a very low social status and isolation, which altogether results in young people wanting to leave their home villages. Integrated strategies have been developed to face the situation:

- A network to reinforce Occitan identity promotes intercultural skills: the school has taken part in various projects with an emphasis on minority languages, working with other schools from different regions, and learning about CLIL methodology. The Legambiente campaign "Piccola grande Italia" let locals hosting students from outsides, highlighting the "little hidden treasures" of the territory. Furthermore, a multilingual project assures the inclusion of new habitants of the Valley (almost 10% of pupils), coming from East Europe and China.
- A network to respond to youth issues fosters dialogue between students and local authorities: the Youngsters Municipality Council has been working since 2006 involving several villages in periodical meeting where students self-organize activities for themselves and for the community, also including typical mountain activities, such as rock-climbing, mountain bike, short excursions, snowshoeing to strengthen the pupils' awareness of their being "mountain people" and to recognize territory's resources.
- A network to open borders promotes intercultural exchanges working on sustainable development thanks to a European Union Comenius Programme.

As the Italian example shows, the local interests of a community often respond to global problems, therefore addressing issues that are concluded to be common in the local community, and which also influence schools' operation (in this case the very existence), might become collaborations for sustainability.

Quotation from a teacher's brainstorming, in a course on Agenda 21 UN action plan

WHAT IS ESD?

Fight against pollution Youth Participation
Recycling Sustainable mobility
Cooperation and responsibility Facing climate changing
Biosphere protection No deforestation
Respect for minorities Consumption reduction
Ecosystems conservation Human Rights
Intercultural competence Intergenerational dialogue
Health Resources / territories management Biodiversity
Corporate social responsibility Well-being for everybody
Intercultural dialogue Respect for minorities
Youth participation Equity

Teachers brainstorming learning about Agenda 21 UN action plan – Legambiente„ Sicily, Italy, 2008

Chapter three: who

Who can establish vital coalitions for creating a "living learning laboratory for sustainability"?
Which societal groups (schools, neighbours, local businesses, NGOs, municipal government workers, etc.) can become engaged in mutual learning in order to help realize singular and shared goals (without always being aware of that)?

The diversity of partners and actors of collaboration for sustainability is the starting point of the **‚Theory Box',** which highlights what roles schools may take to facilitate mutual learning and establish long-lasting coalitions with diverse partners. Communities that join schools for such alliances can enjoy benefits of being parts of "living laboratories for sustainability".
The section **‚Benefits'** shows how efforts put into developing collaborations for sustainability impact on partners in various ways, such as solving difficult problems, expanding initiatives or triggering power.
The **‚Challenges',** collaborating partners may face are also multifold and therefore are represented from three main perspectives: finances, collaboration and networking. While working for a change, one might find difficult to respect the idea of every school being a great school.
The **‚Exemplar Case'** gives an insight into an Austrian journey of collaboration, providing useful comments, hints and some tools that can improve the quality of partners' working together.

Theory box

Arjen Wals

In our search for a more live-able, equitable, enjoyable and, indeed, sustainable world we are increasingly finding that conventional approaches of teaching and learning are not the most suitable in engaging people in the grand challenges of our time. Perhaps our refined ability to reduce and divide the world into artificial categories and false opposites (e.g. disciplines - subjects, formal - non-formal, public - private, school - community, young - old, expert - novice, scientific - non-scientific, virtual - real, etc.) has helped us in understanding and describing the world and in giving us a sense of comfort and control. However, it does not help us in seeing relationships, dealing with complex issues, handling uncertainty and connecting people and people and places. Moving towards a more sustainable world above all seems to require that we let go of traditional distinctions and binaries (e.g. 'us and them,' 'right and wrong,' 'sustainable and unsustainable') and instead seek-out forms of teaching and learning that allow us to cross boundaries and establish vital relationships with people and places that will ultimately lead to the wisdom we need to live meaningful and responsible lives.

In response to this call, schools need to become partners in vital coalitions between different societal groups seeking to jointly improve the local conditions (e.g. with respect to food, nutrition, health, energy, climate, water, participation, social cohesion, diversity, housing, etc.) while being mindful of the larger planet, other species and generations to come. Working collaboratively on real issues, linking them to the school curriculum, taking advantage of ICTs but also of new forms of learning (e.g. social learning, experiential learning, action learning) and the resources available in the wider community, can create 'living laboratories' for experimenting, trying-out, testing and learning from sustainability-in-action. Not only does this provide a new sense of purpose, accomplishment and empowerment, it also could yield the kinds of competences that appear crucial in the years to come (e.g. systems thinking, utilizing diversity, community problem-solving, empathic understanding, conflict management, handling socio-scientific disputes, dealing with moral and ethical dilemmas and competing claims) but play a marginal role in our current education.

George Siemens (2005) speaks of a 'learning ecology' to emphasize that connectivity between people is influenced and can be strengthened by a number of inter-related factors that together shape a vital coalition of learners. The figure shows how a learning ecology is a networked, facilitated and mediated constellation of formal and informal forms of learning. Within this constellation multiple stakeholders jointly work towards the resolution or, at least, improving an authentic sustainability challenge. We like to think that schools can become key players within vital coalitions working towards sustainability, provided that space is created and support is provided for teachers and students to do so. In this chapter real-world examples are presented and discussed of schools taking up this new role.

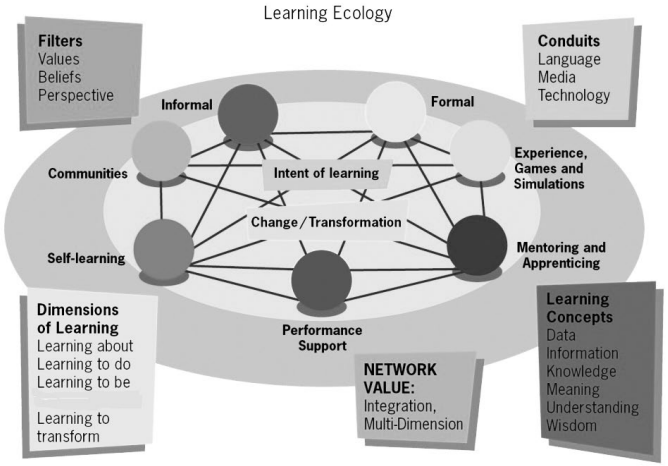

Figure 1

Benefits

Sun-Kyung Lee

No doubt, partners of collaborations have to invest time and effort for establishing and maintaining their practice. However, these efforts might bring several advantages for stakeholders that make it worthwhile for them to engage in such practice.

Benefits in accomplishing own missions

Numerous benefits can be gained through partnerships with varied stakeholders. What is the most necessary and important among these is that partnerships should lead to a qualitative improvement in the accomplishment of missions or performance of individual activities by each stakeholder, organization or subject. Actually, this may be enabled through ESD. Schools can provide quality education for students through ESD, and business sectors can support ESD in schools not only to promote their corporate images or increase their profits but also to make a social contribution and fulfil corporate social responsibilities. In addition, NGOs can get opportunities to induce social changes while local governments can improve their local environments, quality of life, and welfare. For example, the case of Hyewon School, a special school in Korea, wherein the Korea Forest Service, the Forest for Life (NGO), Seongnam City, and a few companies jointly built a school forest to improve the students' learning environment, clearly demonstrates the participation of various stakeholders and its benefits. Also in Tongyeong, through the collaboration between the local network of social organizations and schools, Tongyeong RCE gave the lists of activities to be carried out by different social organizations to schools, enabling these activities to be performed more smoothly, and the schools, in turn, linked these activities to after-school programmes, providing a variety of different learning experiences to students.

Benefits in expanding visions or initiatives

ESD often provides new opportunities for relevant stakeholders. Schools can try new pedagogies or approaches through ESD, and as a result, gain insights or visions that cannot be earned under traditional teaching and learning methods. NGOs can get the experience of realizing their ideal beliefs in real-life situations, and businesses can expand their roles. Local governments can experience and learn about the importance of their leadership and willingness in creating a sustainable society. Relevant examples may be found in many RCEs in the world.

> "For schools and the local community to work together, the local community should learn about the schools....They should learn and study each other to become partners. You can't build a partnership with just words, but the first step towards partnership is to study and learn about each other. 'Oh, he wants to go to Jirisan Mountain,' and you accompany him to the mountain. If you insist and take him to the mountain when he actually wants to go to the sea, shouldn't you go separate ways? You just don't get together, but you should try hard to learn about each other, achieve something together and build confidence....If you don't value each other and find your partner annoying, you can't work with him. Partnership means that you care about each other and help the other grow (Teacher K1, Oct.25, 2012)."

Benefits in solving unsolved problems

When people try to approach and solve problems related to real-life in schools, ESD programmes based on the partnership between the schools and the local community present great benefits. For instance, when a school introduces an integrated curriculum aimed at reducing carbon emission and try to bring actual changes, it can face a lot of difficult issues and problems: how to integrate a clearly compartmentalized school curriculum; how to increase energy efficiency or reduce energy when the school has facilities with low energy efficiency; how to lead efforts related to school curriculum to tangible outcomes in real life; and how to interweave various different activities that have remained apart even after numerous tries. In

this case, a crucial solution can be provided through collaboration with experts in various fields. In Samjeong Middle School in Korea, teachers of different subjects including science, Korean, moral education, art, and social studies attempted at an integrated curriculum, with the cooperation of ESD experts in universities, energy experts in NGOs, and businesses. As a result of the integrated education conducted through the cooperation, they could succeed in reducing around 30% in energy use. However, what is important in a partnership is that they should be well aware of the missions and interests of one another. If they fail to do it and insist on their individual needs and positions, none of the stakeholders – schools, NGOs, universities, companies – can solve their respective problems. In relation to this, all stakeholders in a partnership need to have an opportunity to learn about one another.

Benefits in providing trigger powers

External financial supports, regardless of their sizes, can provide schools or NGOs starting or carrying out ESD programmes with powers that trigger certain initiatives. This can be done by businesses or local governments. In other words, businesses should make social contributions, and local governments should spend their welfare funds. Through the partnership with local governments or businesses, schools or NGOs can be supplied with financial powers that enable them to conduct ESD programmes in schools or local communities. For the results of this partnership to be beneficial to all stakeholders, the processes or outcomes of the ESD programmes need to be visible.

Benefits of working in partnership

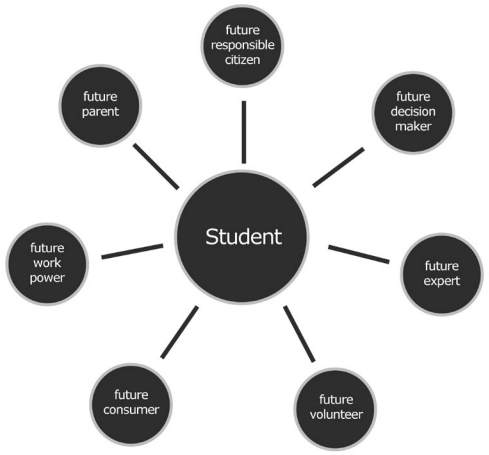

Figure 2

Stakeholders working in a partnership may face challenges arising from different views, structures or ideas, however, they can also benefit by sharing many things such as knowledge and experiences, through which they can advance together towards the sustainability of the local community. For example, Sangwon Elementary School in Korea introduced solar power facilities in partnership with the local community and has been working to enhance the sustainability of the community as well as the school. In this process, the school and the local community are learning together about the necessity and effects of alternative energy sources such as solar power, sharing experiences, and solving problems, as they progress towards sustainability hand in hand. If we regard the future potential of students (see figure), it is clear why these collaborations offer benefits for companies (as they have an opportunity to meet with future work power, they might influence present and future consumers, decision-makers or experts).

Challenges

Attila Varga

Main challenges arising from stakeholders' divergent goals and facilities come via the journey of collaborations. They affect partners in various ways – from these here we elaborate on the means and the framework of the collaboration.

Challenges in finances

The ultimate goal of all ESD development projects is the mainstreaming of ESD practices into the everyday life of an ordinary school. There would not be any significant result if it remains the practice of super-innovative teachers supported by huge extra resources from stakeholders such as the government. Mainstreaming means that the collaboration is the part of the core business of schools, it is embedded into the compulsory activities of each pupil. In that way the challenge is to develop a financial system where schools can use their ordinary resources - like the wages of teachers, physical facilities or time allocated for compulsory activities – to realize collaborative ESD partnerships

Challenges in collaboration

One of the biggest challenges in managing a partnership is to define ownership and responsibility for the common actions. On the one hand as schools have the responsibility for the efficiency of the educational process there should be a clear ownership of the school's mission in order to ensure that partnership serves an

educational goal fitting into the curriculum. On the other hand partners also should feel ownership and should be convinced that their goals could be reached by the collaboration. The main challenge is to find a healthy balance which could serve as solid background for common actions in order to realize a shared vision. As partners have different interests, balancing is a very difficult task. Schools' main focus should be to improve their pupils' awareness about sustainability issues in general, while their partners are usually more interested in a particular area or action. Schools have to communicate very clearly to what extent they could contribute to reach the specific goals of the given partner of the collaboration (see textbox for an example).

> "The creative documentation and presentation were also part of the project and were worked out by the students. Due to the presentations there would have been even new assignments for further, similar projects, but these were not accepted, as the students did not want to do the same for a second time. ... It would have been financially lucrative for the school to accept the assignments, but the teachers were also not so interested in them, as their main goal was not the success of the project (in the sense of results), but the learning potential which the projects could offer." (Steiner, 2011)

Another challenge in collaborations for sustainability is that schools often feel responsible to educate not just their pupils but their partners: in other words, there is an expectation for schools that they should change the attitude of the whole society. The question is what should a school do if their partners - especially parents - do not consider sustainability as important as the school? May the school cause conflict in families, for example by persuading pupils that some habits of their families (e.g. use of car, or overseas holiday) is harmful to the environment and therefore immoral? A possible answer is that schools should not determine any predefined answer about any particular behaviour, but they provide viewpoints for consideration and should emphasise that the very decision should be made by the particular participants of the situation.

Challenges in networking

The aim of networking is not merely to improve the practice of special participants, not even only to channel the good solutions from good schools or partners to bad ones but to mutually learn from each other, including expanding horizons and visions. Networking serves as a tool facilitating stakeholders to take part in the fulfilment of expectations of our common moral responsibility for all pupils and for the whole society. Networking in ESD could become effective if we could accept the attitude expressed by title of David Hopkins' book Every School a Great School (Hopkins, 2007). The title could be generalized and we could state that every partner is a great partner. This means that a prerequisite to develop effective partnerships among schools, or among schools and other stakeholders of the society, is the assumption that all partners are great, meaning that they are doing their best to achieve the common goal of sustainability and that they are able and open to develop their own practices in a mutual learning process assisted by networking.

Exemplar case

Andrea Binder-Zehetner

What kinds of communication do we have in school-community collaborations?

Communication processes in school-community collaborations aiming at sustainable development issues focus on the topic of the project and on the cooperation process itself. Hence the Local Agenda 21 Vienna has a twofold communication strategy and process to be successful in cooperation processes. Environmental communication has to be combined with the reflection of the cooperation process itself. Between these two kinds of communication there has to be a balance, more communication on the content of the project cannot compensate the lack of communication on the cooperation process.

How to build up a common perception of a project and common targets at the start of collaboration?

First of all, you need a place for communication. In the frame of Local Agenda 21, this is the steering group of the LA 21 at district level. The steering group consists of politicians from the district and citizens, who are representatives of the Local Agenda Citizens groups. In the case of school-community cooperation, one or two pupils are participating in the steering group, which meets four times a year.

The pupils prepare the presentation of their project using a checklist, which helps them to describe what they want to do: title, aim, working steps, necessary resources and cooperation partners. All the members of the steering group make a sustainability check together, where the project is discussed along a certain set of aspects of sustainability, such as:

- Partnership and cooperation: What are the project's effects on dialog and mutual learning processes?

- Precaution: What is the projects´ impact on avoidance of damages of the environment and health?
- Global responsibility: What are the effects of local action at the global level? Local action should not be done on the expenses of people and environment in other parts of the world.
- Self-organisation and individual responsibility: What are the project's effects on citizen's engagement, creativity and neighbourly help?
- Diversity: What are the project's effects on diversity in the environment and society?
- Proximity: What are the project's effects on the living environment?
- Local identity: What are the project's effects on the districts identity, image and characteristics?

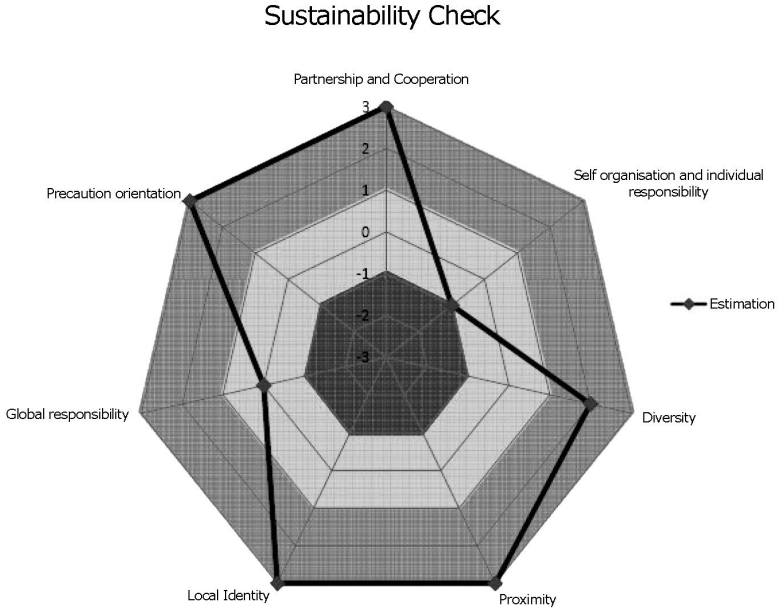

Figure 3

The ranking of each aspect goes from minus 3 (bad influence in relation to the aspect) to plus three (optimal influence of the project on this aspect). Partners estimate together how the project contributes to the described aspects. A series of questions make the aspects more concrete and support the estimation. In the first round, each member of the group makes his/her estimation and then a discussion follows about the assessment. In a second round, the group tries to do a common assessment. In this way, a common knowledge and perception about the project emerges and a common ground for the future work is built. The assessment also helps to detect weak points of the project and helps to adjust the working plan. With this discussion process and the visualization of the results in the spider graph it is possible to decide whether or not the project should be supported and realized in the frame of LA 21.

Trust is the cement of cooperation – how does it develop?

At the beginning of cooperation it is not only important to get a common idea of the project content and aims but also of the reasons why there should be cooperation and if the proposed partners are the right ones. Trust develops while acting, when you see that arrangements are held, when expectations in the actions of the partners are fulfilled. A long-lasting time frame of a cooperation helps to develop trust as well. Positive effects of trust in collaboration include that decisions are made easier, more rapidly and the danger of conflicts is reduced.

Cooperation lives off the good personal relationships between the partners

In the case of our school example the teacher was the person who could build very good relationships to all partners of the school (internal and external). He is a very experienced teacher who can quite easily establish partnerships with teachers teaching other subjects. He is already known to be carrying out interesting and successful projects, so it is easier for him to arrange that pupils can miss school periods while working on their project. He is a very active man also in his spare time (socio-political-engagement, archivist, and musician); therefore he has experiences about how different partners from outside the school think and what their needs are.

Chapter four: why

Why would people be motivated enough to work in collaboration, in a new field?
Why collaboration offers benefits compared to other ways of delivering project work?

In chapter WHY you will find a **‚Theory Box‘** on the mutual characteristics of quality teaching and learning and ESD best practice.
The **‚Benefits‘** for schools and communities include opportunities for realistic and real-life examples of the use what is learned at school. Communities will find valuable ways for bringing their social responsibility in practice and also improving the relationship with schools.
The section **‚Challenges‘** anticipates the most frequently faced problems of reliable collaborations such as creating inclusive working environments, reaching a good level of commitment, working out a realistic action plan and maintaining a long lasting cooperative will amongst partners
The **‚Exemplar Case‘** shows how different collaboration strategies result in different gains; it compares three real-life examples providing win-win situations.

Theory box

Rolf Jucker

If we are engaging in school-community collaborations in the context of Education for Sustainable Development (ESD) we have to clarify three things:

1) What is our aim, in other words, what is sustainable development?
2) What works well in social learning (because the collaboration is a social learning process)? and
3) What is needed so that learning happens and works? (Jucker 2011)

To clarify our aim, we need to understand that we are tied into a non-negotiable context of scientific facts. On the one hand the Earth ecosystem is finite, non-growing, materially closed, and while open to the flow of solar energy, that flow is also non-growing and finite. On the other hand, we as human beings are totally dependent on the life insurance called biosphere. Without its ecosystem services on all levels we wouldn‘t last a day (Chivian, Bernstein, 2008). That we are dependent on a limited resource base is the framework within which sustainability must be negotiated. This is why only the concept of strong sustainability makes sense:

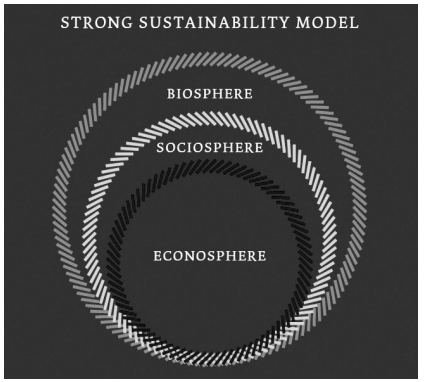

Figure 4: (http://nz.phase2.org/what-is-strong-sustainability, access 18.1.2013)

When we try to answer the second question we find that the required paradigm shift in real world action only happens if adults and young people work together towards ‚one planet living‘ in their school-community (Jackson 2005). They need to form learning communities characterized by participation, co-creation and identity-building, wedded together by long-term commitment and motivated by a common aim, namely the transition towards sustainability. All together need to practice real action as change agents, not virtual games.

And finally: when does learning work? John Hattie has probably the most comprehensively researched, scientifically based answer, and it is a short and clear one: Those educators make a difference *“who engage [learners], turn them on to the subject, who inspire them, and who communicate a passion for learning“*. *“The methods that work best (...) lead to a very active, direct involvement, and high sense of agency [by educators and learners], in the learning and teaching process.“* Effective *“learning requires the active involvement of the learner; learning is primarily a social activity, (...)“*. (Hattie, 2009) School-community projects can provide fertile grounds for such social learning; that is why we need them. If they are based on these insights, achievement is almost guaranteed.

Benefits

Wim Lambrechts

There are a number of reasons why collaborations between schools and communities focused on sustainable development should be organized. This part focuses

on the gains and benefits of such collaborations, and offers some tips and tricks for improving. The benefits of school-community collaboration for SD can be clustered in the following list:

Benefits for schools	**Benefits for communities**
- it enhances systemic thinking (and other SD competences); - it fosters an inter- and transdisciplinary approach; - it strengthens the competences of teachers ('educate-the-educators'); - it offers realistic and real-life examples of SD; - it offers students to learn about values inherent to SD; - it offers opportunities for schools and students to learn about economy, companies and professional life; - it facilitates students' career choices; - it offers opportunities for intergenerational learning.	- it provides a better image and understanding; - communities can benefit from the schools' facilities; - it creates public support and awareness for their initiatives; - students can be introduced as interns and volunteers; - it offers opportunities to bring their social responsibility into practice; - it creates gateways for companies to reach and learn about schools and to get acquainted with future professionals, experts, workers, consumers and decision-makers (that students will become, see Chapter 3, part Benefits).

Table 1

Benefits for schools:

1. *It enhances systemic thinking (and other SD competences)*
   Education nowadays is too much based on a disciplinary structure and focused on knowledge reproduction. Some competences for SD, especially those related to systemic thinking, future orientation, values and responsibility issues, are hard to deal with in 'classic' classrooms. School-community collaboration for SD offers unique opportunities to strengthen systemic thinking. In collaboration, students see the links between the society issues and learn how to deal with these issues in a realistic situation.

2. *It fosters an inter- and transdisciplinary approach*
   Teachers in the classroom tend to focus on their topic more and more, without any focus on other disciplines, or on the real life application of certain knowledge gained in one specific (school-reality) context.
   School-community collaboration helps to cooperate between different disciplines, making clear the links and relevance of an interdisciplinary approach. It also introduces the viewpoints and practical knowledge of stakeholders outside the classrooms. This is a truly transdisciplinary approach, where knowledge from outside communities is valued as much as classical (curriculum-driven) knowledge.

School community collaboration for SD
Checklist for benefits:
- Offers a win-win for all partners.
- Addresses the SD-issue in its complexity.
- Respects the knowledge and viewpoints of different stakeholders.
- Offers a realistic perspective for the future.
- Addresses values inherent to SD.

3. *It strengthens the competences of the teachers*
   Teachers may not feel confident when it comes to topics of SD or may not see the relevance of SD for their class or discipline. School-community collaboration for SD offers great opportunities for teachers to learn about SD, giving them the necessary skills to pass this knowledge and know-how on to their students. A collaboration focused on SD offers an "aha-experience" for teachers.

4. *It offers realistic and real-life learning arenas of SD*
   SD is a complex and diverse concept, hard to teach and learn about in class. School-community collaboration for SD offers realistic and real-life experiences to students and teachers. First hand experiences are more effective and offer insights that are not covered within a classroom, yet these insights are needed when it comes to dealing with SD issues.

5. *It offers opportunities for students to learn about values inherent to SD*
   SD is closely related to values and attitudes. Yet, within education that is more and more focused on competences and learning outcomes, values seem to be evaporating in class, as they are hard to teach, measure and assess. School-community collaboration for SD offers opportunities to gain certain values and attitudes, as they are happening in real life and offer realistic cases.

School-community collaboration on SD can provoke a real eye-opener for all stakeholders involved!

6. *It offers opportunities for learning about divergent points of view*
   Giving insight to the plurality of opinions, points of views or solutions to problems in the society is a weak point in most educational systems. In school-community collaborations, intergenerational learning takes place: exchange between people representing different generations and /or different social groups might lead to a better understanding. Besides, it offers opportunities for schools to get better acquainted with perspectives from economy or the business sector and for students to learn more about professional life that can contribute to motivation to further studies or to a better established career choice.

Benefits for communities:

1. *It provides a better image and understanding*
   Often, communities struggle in connecting with specific groups (e.g. isolated communities), or have difficulties in clarifying what the community stands for (their mission and goals). School-community collaboration might help communities and their stakeholders to better understand what the community stands for, or improve the image and knowledge stakeholders have from the community or organization.

2. *Communities can benefit from the schools facilities*
   Schools offer great facilities to their stakeholders. They can provide a much needed space to meet and collaborate. In that way, schools offer a gateway to reach various stakeholders in the community.

3. *It creates public support and awareness for their initiatives*
   Communities struggle in dealing with the complexity of SD-issues. School-community collaboration offers opportunities to get input and valuable feedback from important stakeholders (students, teachers, parents) and to create public support, thus increasing the success rate of their SD-initiatives.

4. *Students can be introduced as interns and volunteers*
   In organizing SD-initiatives, communities often deal with poor funding and a lack of resources. They might benefit from school-community collaboration, as it offers opportunities to unite forces and give part of the work to students and interns.

5. *It offers opportunities to bring their social responsibility into practice*
   Communities are expected more and more to act in a socially and environmentally responsible way. A collaboration with schools offers opportunities to bring this into practice, as schools have experience in social and environmental initiatives.

6. *It creates opportunities for mutual understanding*
   It is a benefit for both school and community partners to develop a common language through the collaboration journey and to exchange their points of view. Besides specific, individual and particular gains (such as more information about professional life for students or meeting future citizens for companies), mutual understanding fosters appreciation beyond the project – therefore, school-community partnerships are future-leading.

Challenges

Bernarda Moravec and Simona Slavič Kumer

In the following section, we compile some checklists to show what common challenges can emerge around the reasons for the collaboration. The important ingredients for successful collaborations should be respected. Negotiating might take energy and time, but later on it will be worth the effort. Also, it is important to try to prepare for any possible challenges in advance, so that participants of the collaboration can focus their work on the key aims and objectives. In this way they will not be so distracted by problems and challenges along the way

Important ingredients for successful collaborations

- Finding a valuable reason for collaboration is crucial and needs to be a focus at the very beginning of the process. It is very important that sufficient time is dedicated to creating an agreed commitment by all partners. They should be aware that compromises may be necessary. When sharing the results of a successful collaboration with other schools and the members of the community, it is important to be clear about the initial rational of the project. References should also be made to any activities that made the start successful

"A big challenge is to establish inclusive structures in traditionally top-down administrations. But if there is a will, there will be a way. There are so many people who already feel the value of mutuality. They can be multipliers

and a motor for further change." (The Wiener Neudorf Inclusion Project Collaboration between educational institutions and municipality for sustainable development)

- The collaboration should be organised in a participatory way. Sharing the vision, language, rational and work plan are essential for effective planning.
- Successful collaborations require strong partnerships. Within this framework each partner should respect basic principles and be committed to them. These should include, mutual respect, and a recognition of the complementary skills of each partner
- Good planning and strong partnerships are essential for a successful collaboration. A successful collaborative relationship may well therefore include tools such as a time schedule and a partnership agreement. These would clearly describe each party's duties and responsibilities.

Some further challenges:

- It will be an exhausting process finding common values, social and educational concerns. It will require time and effort, but collaboration cannot last without a shared vision and mutually respected values. Clearly formulated objectives of the collaboration will also help to reduce conflicts. The objectives should be specific but also broad enough to encompass all the educational concerns and the skills of the community organizations and school workers.
- Creating appropriate project guidelines and objectives via a participative process needs very sensitive guidance.
- In collaborative project work, a group may face organizational and staff barriers alongside other more personal issues. Financial implications must be clarified before the work starts. Partners should be realistic and honest about their reasons for engagement, their capacity and the restrictions on their time. An accurate financial plan is essential, as is a strategy for evaluation
- In schools the school leaders play an important role in any collaborative project. They should encourage and support those teachers who have the capacity to work on such a project. They should help them source partners within the community, facilitate the process of formulating the key objectives and perhaps also help to choose the appropriate form of collaboration. In many countries school leaders have financial responsibilities; so this should also be one of their key roles.
- It is a challenge to develop a common language amongst partners. Chapters ‚Where' and ‚Who' offer ideas on how to deal with this. The 'sustainability' (also the longevity) of collaboration will be informed by effective communication and providing many opportunities for reflection.

Exemplar cases

CO_2nnect

Astrid Sandas

While ESD has a clear mandate in most countries, the education system itself has not yet responded adequately to mainstream ESD. A Life Long Learning Comenius multilateral project – SUPPORT *(www.support.eu)* initiated an ICT based campaign in order to reduce CO_2 emissions related to school activities. This thematic field was chosen because each school generates CO_2 emissions, and schools therefore can share this common theme. The international aspect allowed the sharing of project ideas from all over the world, and inspired numerous exchanges with very measurable outcomes.

The consortium developed a school campaign called "CO_2nnect: CO_2 on the way to school" around the topic of sustainable transport. Pupils participated by investigating their own CO_2 emissions on the way to school, entering the data into an international database, analysing and comparing results and completing local project work. The 'direct instructional' aspect of the campaign: Schools were further encouraged to collaborate and create partnerships through the web-based network with other schools, researchers, or organizations in their community.
The website supported a 'dynamic participation' model, including:

- data presentation and -analysis tools
- questions for discussion
- guidance on several topics
- an "ask an expert" function
- opportunities to upload project reports, ideas, photos and school information
- national and international links on Education for Sustainable Development, climate- and transport issues
- online pupil and teacher questionnaires
- an international school competition.

Students were able to develop knowledge in the topic area of climate change. Learning outcomes also included a wide range of problem solving and project

management skills. They also made substantial progress in acquiring effective skills such as those related to attitudinal change and sustainability 'values'.

The CO_2nnect evaluation showed that it was an innovative educational project. (Benedict, 2010) This report assessed the attainment of both CO_2nnect's short term operational goals and its longer term goal of "improving the understanding and practice of ESD." Information sources included the CO_2nnect website, information and feedback from the SUPPORT partners and an online evaluation filled out by 207 participating teachers.

The findings showed that the positive learning outcomes for pupils and schools had a direct correlation with the intensity of the school – community collaboration. Outcomes in several skills areas, for example attitudes and values, tended to be more challenging to achieve but also more responsive to the degree of collaboration than outcomes in the areas of understanding of complex issues and awareness-raising. This finding supports the idea that collaboration on real-world sustainability issues is a driving factor for learning outcomes of ESD related to personal engagement and participatory citizenry. The CO_2nnect tool facilitates such collaboration by

1) creating a learning arena for school-school and school-research collaboration on the internet, and
2) providing a framework of scientific activity and school guidance to help schools construct local learning arenas based on school-community collaboration.

CO_2nnect shows the potential for ICT-based tools in order to provide shared global opportunities and motivation for ESD. It was a successful prototype for new kinds of ESD learning and learning arenas, mediated through an ICT-based framework for partnership and participation. The innovation was readily adopted and produced impressive learning outcomes in a large number of schools and countries.

CO_2nnect produced several kinds of positive outcomes for schools, improving their capacity and competence for ESD, but CO_2nnect and similar ICT-based tools may need to be coupled with other kinds of school development initiatives to reach their full potential for stimulating school development. If schools are not receptive and capable of understanding and exploiting the potential of ICT-based tools and guidance, then good tools alone may not be sufficient. The CO_2nnect website offered substantial guidance, supplementary materials and links in the area of school development, but even more support may be needed to help schools develop a culture of pedagogical reflection and organizational learning. The context of legitimacy, delivery and support in an ICT-based initiative such as CO_2nnect is therefore as important as the structure and content of the innovation itself. Integration into existing programmes of school support, guidance and development could multiply the impact on long term school development and capacity building.

CO_2nnect was very successful as a prototype for new kinds of learning and learning arenas for ESD. It was also quite successful in introducing new activities and approaches in many schools internationally using ICT tools. In the area of educational policy, CO_2nnect clearly contributed to school development in participating schools, but its potential for promoting this could have been even greater. Impacts of CO_2nnect on national and international education policy frameworks are long term and difficult to assess at this point.

In the light of the positive outcomes of the CO_2nnect prototype, the ideas and principles of CO_2nnect should be considered for integration into future ESD initiatives. ICT based tools such as CO2nnect can stimulate new kinds of collaborative learning arenas and participatory learning processes in large numbers of schools globally, producing strong and diverse learning outcomes. Schools need such concrete and well-structured opportunities, networks and activities to stimulate and enhance project work in collaboration with the local community and to support school development.

Experience with CO_2nnect shows that "instrumental" and "emancipatory" approaches to educational development can be combined, creating a synergy between structured external initiatives and creation of education arenas and processes at the local level.

The *www.co2nnect.org* project is the base of the new re-launched campaign of CoDeS dealing with projects in collaboration with communities. It can be used free of charge for schools around the world and is offered in 17 different languages.

A selection of successful school-community projects

Mária Tóth

There were so many different collaborative learning journeys that it seemed impossible to create general rules for everybody. This is the reason why we will mention some inspiring cases to show why collaboration in learning for sustainability would offer benefits.

Located in *Winklern*, a village in the Mölltal region in Carinthia, southern Austria, the collaboration of the National Park Hohe Tauern Carinthia and the Secondary School in the region made the school more attractive stopping the loss of secondary school students who had preferred to attend schools in bigger cities. It also strengthened people's awareness about the local values of the local National Park[6]. By successful inclusion of environmental topics and the outdoor programme „Nature-Sports-Fun" in the school curriculum, students became aware of the importance of the sustainable development in the region's environment, population and economy, so they became willing and able to take responsibility for it in future. Students became regional "ambassadors" for the NP, contributing to raise the acceptance of the National Park within the community, while their competencies were developed through experience-oriented learning by encouraging their responsible, sustainable actions. The NP administration provided personal and financial support for the programme.

By collaboration schools gain human resources or/and financial resources. Human resources would open windows for schools, helping them to update knowledge and information. Financial resources come directly or by materials or technical support, and would help schools to be advanced in their specific issues.

Another school in Romania[7] gained a very useful tool for educating children for sustainability while improving the conditions at the school yard. The parents' community, a local institute and a NGO contributed to make changes in the school. The success convinced both children and adults that a strong will and commitment can produce incredible changes in their environment. This collaboration is about supporting the development of students' ideas and transforming the school yard together: improving the existing conditions by creating a pleasant, inspiring, green, natural environment where children spend their break-time each day. The school needed this collaboration for economic reasons and to have more adults helping the process of realising a green school yard and also involving children in making the change.

Community groups help the school gain information about their own available human resources for future while getting more support for development from the larger community.

In Cyprus[8] by integrating in learning places such as local parks, botanical gardens, service stations, police stations, florists and garden centres, avenues, municipalities, and local trades, "open classrooms" were created. In Limassol Primary school, the "adoption of a Park" served as a learning environment, while in the Livadia Primary school, the classes of 9-12 year olds chose to explore the conservation of local products. They focused on interconnecting environmental sustainability (conservation of the local wetland as a source of raw material – straw – that local population uses for handcrafts) with social and economic sustainability (development of local trade of straw made handcrafts, conservation and protection of traditional professions and skills, economic sustainability of the area and social cohesion) and cultural sustainability (arts, traditional songs and dances inspired from straw as the dominant local vegetation).

In all cases engaging different population groups, backgrounds, ages and expertise in working together for the achievement of common goals concerning SD issues in their community, consequently ensured and raised their quality of life through these collective actions and interventions. Local authorities offered financial support and public services that they operated as suppliers of information, expertise, while offering practical support and guidance according the topic.

Creating win-win situations for involved partners, assuring mutual benefits, mutual learning of involved parts occurs. This would influence the life time of the initiated collaboration and also it would transform that from short life time activities (some months or years lasting projects) in to a usual routine of the school-community relationship.

6 http://codeswinklern.wordpress.com/

7 http://codesherocluj.wordpress.com/

8 http://codespedagogical.wordpress.com/

Chapter five: how

How could we strengthen joint actions for sustainability?
How do we ensure participation for all partners?

In the **'Theory box'** an input from environmental psychology describes how supporting the process of inviting partners contributes to the collaborative process. Besides shaping the physical environment (for which chapter 7 offers points), communication is a crucial point in the joint learning journey of communities and schools. Environmental psychology and environmental communication offer a number of techniques can be applied to form a smooth working process satisfying partners' needs.
'Benefits' touches upon topics that improve the quality of collaboration: these issues might become beneficial to partners and therefore can turn the collaboration self-sustaining and self-enhancing, making sustainability the routine of a community.
'Challenges' are introduced from a ministry's essential experiences in managing school-community collaborations. Hints are offered to cope with problems emerging from the interference of different organizational cultures, via an overview of a former project.
In the section **'Exemplar case'** a primary school teacher shares her experience about going public and using blogs in collaborative projects, as another aspect of communication.

Theory box

Andrea Dúll

Environmental psychology reflects on how the physical environment affects social structures, and also on how social structures influence or create the physical environment around them.
Considering both scientific research in environmental psychology and communication and everyday experience, institutional settings of education – nurseries, kindergartens, schools – are extremely important sociophysical environments. The term *'sociophysical environment'* refers to interaction between people (students, staff, parents) and their physical environments (classroom, corridor, school building, schoolyard etc.).

The approach of environmental psychology and environmental communication helps to explore and understand many explicit and implicit processes going on in educational settings. Schools are *behaviour settings* of teaching, studying, socializing – this means that the educational activities should be analysed in the interconnected context of the psychological-pedagogical processes and physical spaces.

One of the main considerations is, that primarily the educational settings are designed and evolved fitting the needs of children. This was one of the best things that ever happened in environmental design! But, environmental psychological research shows that characteristics of these settings must be explored much more carefully taking into consideration viewpoints of other users since educational institutions have a mixed function: children are taught and socialized by adults in various roles via many direct and indirect processes, and for the adults, these spaces are workplaces. These two functions (educational place and workplace - both being very complex situations) are located in the same place and – in an optimal case – must fit the needs of all users. Besides planned and directed mechanisms there are numerous underlying, non-controllable processes deriving primarily from sociophysical context (e. g., privacy regulation, territorial behaviour, status communication etc.) and these can be conflicting or dissonant in cases of the user populations. These latent effects sometimes are – if not causes – but roots or at least contexts of several inadequate behaviours (aggression, destruction) in educational settings. For example, crowding in a classroom can originate from social density (too many people per a given area) but also from spatial density (too little space for a given group). Since the essence of crowding, the experience of "being too condensed" is completely different in two cases of density mentioned before – interventions can be also distinct: reduction of personnel can be the solution in the first example, while more space in the second one. Application of environmental psychology and communication can help to reveal, identify and solve problems in educational settings and the probability of inadequate behaviours can be reduced.

Benefits

Péter Brózik

Fruitful collaborations can be born from a diversity of possible partners having found gateways to enter. Communication plays a key role in inviting partners with dissimilar or multiple roles. Parents and teachers are all parts of the school and

the community. Local authorities refer to political structures but might also be parents (and they used to be pupils). The structure of the network to be formed can determine how partners contribute to realizing the shared aims. Environmental psychology and environmental communication are useful tools supporting reflection about collaboration structures and how they are represented in the learning arena as well as in the communication process. Some of the benefits that may arise from this reflection are summarized in the following section.

Environmental communication: a framework for collaboration
Every community has the right and the chance to determine its own structures, in terms of physical arrangements, social connections, behavioural rules, etc. that community members tend to call 'order'. The different aspects of environmental communication help us highlight the analogies between nature and our closest environment: 'order' is a sensitive equilibrium which provides a sense of comfort, safety and relaxation but it also calls for continuous re-enforcement. Consequently, it has been also shown to scaffold implicit learning. Environmental communication can help us in highlighting certain aspects of the environment which are normally not or just slightly consciously perceived. By thorough consideration, assessment and possible improvement of these, the quality of collaboration could be enhanced in a way that participants develop a willingness to contribute to the joint work. Developing relationships that offer mutual learning is a way to create self-sustaining collaborations.

Mutual learning in different roles
Inclusive design creates an appropriate environment for invitation. Its message is that everyone has a role to play, so everyone can take an active part in the maintenance of sustainability processes. Adequately established or organized environments can assist participants (from the youngest to the eldest) to become competent actors. Another point to consider is accessibility in communication: information, tasks and invitations should be addressed to target groups in a way that suits their culture and language. Embarking on such an initiative does not necessarily require money, large investment, or change.

Increasing the quantity and the quality of interactions
Establishing a safe environment with inclusive structures encourage partners to form links to others. Raising awareness of the elements of the physical environment provides an opportunity to shape attitudes through the most various channels. Messages should be expressed in a way that inspires participants. Appropriate

environmental communication design and planning can play an important role in enhancing personal interest in sustainability.

From awareness towards responsibility
Environmental communication helps the members of the community to learn about and understand the underlying relationships and connections of how a community functions. It also promotes an understanding as to why it is important to accentuate the goals of the community alongside individual ones and at times even subsume temporary personal interests. This supports participants in becoming responsible members of their community.

Better communication, stronger community
Adequate environmental design and planning can enhance the better functioning of the community. Planning and analysing communication at different (institutional and interpersonal) levels within the school and between the school and its partners and its environment would further foster cooperation within the community. Inclusive, accessible communication generates initiatives in the communities, assuring that the project work becomes sustainable. In sustainable environments social structures are more stable.

Challenges

Günther Pfaffenwimmer and Manfred Wirtitsch

Ministries are important partners. Many projects call for ministerial involvement, integration or support, but ministries themselves have limited options to act. A ministry cannot just face challenges in collaborations between communities and schools for sustainable development, but its special position offers a helicopter view that might be interesting for other stakeholders too.

The Ministry for Education and Women´s Affairs in Austria is the central responsible institution for the school system, for curricula development, budget and teaching staff. Austrian schools are more or less autonomous. Between Ministry and school are whether one level (for upper secondary schools) or two levels (for compulsory schools) of regional administration (provincial and district) set. The formal frame for teaching is given by different curricula. Teachers have the responsibility and the freedom of choice how (methods) and what (contents, exemplary/show case learning) they are teaching.

Schooling is a hierarchic top down system from the Minister to the student. Yet in schools teaching and learning in participatory approaches is discussed and encouraged. But due to inherent system there are contradictory roles and situations, especially for teachers.

In Austria communities and cities are organized in representative Associations of Cities, Towns and Municipalities as a vis a vis to the administration and political bodies on national level (i.e. Government, Parliament, Ministries). Communities such as cities, towns and municipalities are relatively autonomous administration units. Their task is ownership and financial support of compulsory schools (elementary and lower secondary level). For a communication directly between Ministry, cities, towns and municipalities there are no formal frames existing, especially not in the context of school-community-collaboration in order to stimulate developments and learning possibilities on local level.

Interactions between schools and communities involve interference between these different structural backgrounds organizations (many structures are not even organized as 'organizations'). Collaborations include co-existing, diverse structures within the working environment and different patterns or strategies of interaction between group members. Therefore, the Austrian Federal Ministry for Education and Women's Affairs had to find ways to deal with this situation.
The Ministry´s department for Citizenship-, European Citizenship-, Consumer-, Environmental- and Road Safety Education took the chance to finance and run a very first project on school-community-collaboration: In December 2008 18 experienced, i.e. longer lasting partnerships were invited to a workshop. Each of the 18 teams consisted of the Mayor or his deputy, a head of school and a teacher. This successful workshop resulted in two publications: in an article as contribution to the publication within SUPPORT (Lukesch et al. 2009), which proposed school-community-collaboration as means to enhance ESD and in a folder *"Kooperation zwischen Schulen und Gemeinden – erfolgreich, nachhaltig, innovativ"*. This folder is a document which was agreed by the Associations of Cities, Towns and Municipalities as well as by the Austrian National Youth Council and the Ministry for Education and Women's Affairs. It is still a valid basis for contact, dialogue and collaboration in Austria.

As a fortunate circumstance in 2011 the *"external relations and opening of schools, active contacts and collaboration with external partners"* (BMUKK, 2010) became part of the school quality management law. Parallel to this the Ministry for Education decided to be partner in the EU network project CoDeS and the topic of school-community-collaboration was adopted as main topic for the Austrian ECO-school network in the years 2013 – 15.

As already mentioned there is little opportunity to enhance these collaborations. There is only the chance of a soft, open and participatory communication with the responsible persons on a local level. The Ministry can only encourage, communicate and stimulate to collaborate on local level.

This means practically:
- Collecting examples of good practice, encouraging and supporting schools and making them visible via a website.
- Organising and continuing dialogue with the Associations of Cities, Towns and Municipalities.
- In agreement with these associations informing directly mayors and school principals about these ideas and encouraging local developments in this field.

Exemplar case

Ildikó Lippai

In a school lots of events can occur. There are some which are known only by the leadership, some are known by the teachers or the students but some are known by everyone. If our aim is to let everybody know about a project, then we could use several information channels. The visibility and audibility are necessary for schools in the competition of the institutions. If a school does not lay emphasis on this, the project will be separated and will not be sustainable.

However, in their communication, schools should consider some criteria to take into account. Some tools from environmental psychology, for example simple assessment tools or tests to estimate priorities of partners are the most appropriate way to create inclusive, accessible communication environments.
Planning is the first priority in this process. The management of the schools going public must not happen by chance but should be well-planned.
- The first step is **to determine the target:** what they want to achieve with the publication: to raise the attention, to communicate some pieces of information, to disseminate some knowledge, etc.
- The second step is to **identify the target group,** which can be a local organization,

some collaborators, parents, other schools, teachers, students, or a range of diverse public.
- The third step is **to specify the device.**

Examples for information channels are:
- Local media (radio, TV, newspapers)
- Student newspaper
- School teletext (inside channel)
- Leaflets, posters
- Homepage, website
- Social networking websites
- School blog

Here I will share some of my experiences with the latter. The blog is originally an online-diary. We keep the happenings in chronological order, illustrated with photos, pictures, animations or videos. The most important thing is to determine the exact goal, to create the design and the sustainability of the blog. Most of the blogs become easily empty and later they freeze. So it is better to start not an „endless" blog.

We have to identify the reasons why we create it and the means how long we want to write into this internet-notebook. If we only want to upload and share information about a project or our school, it is a better solution to do it on a social networking site, which is more free and non-regulating. But in this case we also need to pay attention of the maintenance and safety issues.

In our school (which is a Hungarian primary school with mixed group of students) we have changed the student newspaper into a school blog for 2 years.

> *"We like writing the blog very much, because we can share our ideas and thoughts about the school life and ourselves. We feel that we can also tell our opinion and we can transform the face of the school. We are an active part"* (Tímea Kánya, 14 years)

Our city has got more than 20 primary schools, so there is a high competition for the survival. In our school there are about 600 students from different social backgrounds. It is very difficult for the teachers to involve kids into community activities. When I started to run the blog, students were very interested in writing, but later they lost their interests. Only some of the children were really persistent.

The teachers have to choose the right person who is suitable for the task. For me it was a sense of achievement that not the „best students", but sometimes the weaker students had more interesting writing styles. Or the kids who came from really poor families, they had good sense in making photos.

> *"While writing the blog I realized that I can write articles better than I thought. And now I know that later I will become a journalist."* (Gery Gönczy, 12 years)

It is a good practice in our school that some of the students are chosen for the blogger role, and they have to watch and monitor or moderate the posts or comments. After my experiences, the most suitable age group for blogging is between the ages of 11-15. They reach the level to express themselves in writing form and they have creative ideas. When I involved students with behavioural problems into the working process, it was a very successful step. Children felt they have responsibility in a school project and they showed improvement in their school activities. But blogging has two sides.

Advantages of blogging:
- Students can write the posts that are short, brief and are not so formal as to form a barrier in unrestricted thinking.
- It is a good way for the students to improve writing skills.
- The articles can be linked with other subjects (using historical or geographical facts, etc.).
- It is a collection of information in a specified theme or project.
- We can get thoughts and ideas from others.
- It can be easily reached by anybody and anywhere.
- It can have social integration effect.

Disadvantages of blogging:
- Unreal information can be published if no attention is paid to filtering them
- We have to take care to limit private details: establishing group rules are essential for these.
- Without updating the blog could become dull
- It can become one-sided if there are no comments

From the aspect of the collaboration it can be very useful for the school to stay in contact with other communities. Blogging is a possible way to communicate with each other, share information and sustain the cooperation.

Chapter six: when

When is the best time to start the collaboration?
When should one consider that a certain work-phrase or a process is finished, and when should partners close the collaboration?

Time management hints considering the different habits and customs due to diverse work styles, organizational structures and cultures of partners involved in collaborations are summarized in the **‚Theory Box‘**.

In the section **‚Benefits‘** short-, mid- and long-term planning aspects are summarized with the aim to avoid sources of misinterpretation. Tolerance roots well when there is a better understanding of different paces and agendas.

Schedules of partners are clearly different: the school year begins in late summer or autumn, whereas the business calendar may begin on January 1st. Working at the weekends might be suitable for volunteers, but it may not be fair for professional actors (including business and municipality partners or teachers). Whilst extracurricular activities may be more conveniently undertaken during the holiday: communities must accept that teachers have a right to relax during this time. **‚Challenges‘** and the **‚Exemplar Case‘** in this chapter, highlight why negotiating and reflecting on time schedules must be considered.

Theory box

Franz Rauch and Mira Dulle

The best time to start a collaboration process strongly depends on the format and type of collaboration and the mutual project. Furthermore, time is subjective, even if it is subject to certain standards. All involved actors and organizations have to be considered: the time frame of the school/school year and the time resources of the partners. The beginning and end of the school year are usually very busy and thus unfavourable phases for investing time in collaborative actions, but also fixed dates like exams, excursions, holidays, etc. have to be considered. The working time of the partners/stakeholders also has to be taken into account. Experience has shown that an initial workshop with all stakeholders, led by an external moderator, is a good basis to clarify expectations, aims and the timeline.

When planning the collaboration process, it is essential to calculate sufficient time for:

- the preparation
- meetings and potential workshops with the partners
- fixed dates and
- deadlines
- the implementation of mutual activities/projects
- the visit of experts, lectures etc.
- reflection (accompanying and retrospective reflection)
- the follow-up/documentation
- evaluation
- buffer zone (10%)

It is helpful to plan a start-up and final event with fixed dates. The duration of the collaboration should be designed with a medium-term horizon after which it can be evaluated and renewed. This format includes the possibility to learn from each other and improve one's work. A short-time approach cannot guarantee the sustainability of added value/gains/learning outcomes.

There should be a balance between the planned time for collaborative actions and the achievement of objectives. De-acceleration should be a guiding principle when establishing a long-term collaboration. Take time to develop a good concept and plan enough time for each phase of the collaboration.

Benefits

Margaret Fleming

There are many benefits for practitioners in terms of learning for sustainability, certainly a focus on *‚when‘* this happens or at least the *‚best time for it to happen‘* in relation to the curriculum is very useful.

A number of UK reports point to the importance of early intervention by a practitioner when engaging a school in any new collaborative initiative. The Energy Efficiency Partnership for Homes report (2008) found that motivated individuals within schools are often not aware of the services available from external agencies. So in the early stages of a development they do not know whom to contact. Clarity about the services that can be provided to schools, what added value they can bring,

which stakeholders they will be looking to work with and how their work is or can be funded needs to be known from the beginning. The benefits of this are obvious: providers can then link to the development planning cycle of their school.

The Department for Education and Skills (DfES) stated *'Our belief, backed up by the experience of practitioners and expert organisations is that a whole school approach to sustainable development is the best way to achieve results'* (DfES, 2006).

The Office for Standards in Education, Children's Services and Skills (Ofsted) noted that this is a key feature of the work of the most successful schools: *'... when it is included in documentation and the school development plan, when appropriate teaching and learning strategies are developed and when a member of staff has responsibility for coordinating ESD and it features in staff development programme.'* (Ofsted, 2003)

WWF research found that when from the beginning schools highlighted the importance of school culture and ethos, they could create *'plans and policies that articulate its mission and describe the way it operates'.* (Hren et al, 2004) National College for Teaching and Leadership (NCSL) research also found that where *,successful sustainable school leaders place sustainability at the heart of their school, providing an ethos which pervades all aspects of the school and its external relationships'.* (Jackson, 2007) Jackson also found that those leaders that followed a *,distributive leadership style'* could provide many examples of *,sustainable development being led by different members of the school community.'*

Energy Efficiency Partnership for Homes (EEPH) explains that *,Integrating sustainability into a school is vital if it is to have a lasting, beneficial impact. By doing so, sustainable energy will run through every decision the school makes. It will influence how the school interacts in terms of curriculum, campus and community, and so deliver a whole school approach.'* They describe the benefits of such an approach where sustainable energy education is valued by the whole school community *,including the leadership team, students, parents and governors – and integrated into the daily running of a school'*.

In terms of working with students, practitioners should always try to include long-term student engagement in their methodologies. Often too many projects are short term. Ofsted's report agrees with this: *'Giving pupils both individual and collective responsibility in looking after and improving their learning environment. Most schools which promote ESD effectively have an active school council or eco-committee.'* Their report highlights a secondary school in which each tutor group spent a week as eco-monitors, ensuring that 'everybody - *not just a select group of enthusiasts - played a part in improving the school's sustainability'.* Ensuring that this participation is regular and throughout the school year can be really beneficial to students.

EEPH's (2008) recommendations for practitioners follow this guidance: *,External agencies should always include long-term student engagement in their methodologies for working with schools. They should help to establish a student sustainability body or include sustainable energy into the remit of an existing student group as part of their work'*.

Collaborations
are melting pots of different organizational structures resulting in diverse policies, frameworks and principles for time management. Identifying common working structures with special focus on opportunities in agendas and defining available time-slots brings about commitment, involvement and long-term sustainability for collaborations.

Challenges and experience

Chrysanthi Kadji-Beltran and Katalin Czippán[9]

WHEN should School - Community Collaboration for ESD be pursued?
School community collaboration should not depend on special occasions or special issues calling for the collaboration need to arise. It is always the right moment to set up the process for developing and implementing school – community collaborations and benefit from the outcomes:

educational (New kinds of learning outcomes, empowering learning in real life contexts, understanding the complexity and systemic nature of sustainability, providing stimulus for school development), **social** (Schools become a resource of society, inclusion and social cohesion is promoted) and **practical** outcomes / benefits for the community (Czippan, Varga and Benedict, 2010).

9 In this dialogue, Katalin Czippán's remarks are in italics.

The viewed cases highlight that "it is always the right moment" to initiate and realize a collaboration with the community.

The right moment for example can be finding opportunity for participating in an international project for cooperation and/or when a local leader appears. In Finland, in the Sorrila School the good moment was when a teacher of the school started a PhD and as a subject of her study she carried out an action research on collaboration. The case was a similar in Hungary in Algyő: a professor of the teacher trainer university carried out the action research with the school on education for sustainability with an active participation of the future-teachers. Both action researches happened as part of an ENSI school development project.

Changes in the educational circumstances can be always good moments to use the available resources to organize the educational activities differently. This was the case in Vermont, USA, where the local authority introduced a programme so as to bring out a school from its disadvantaged situation. Using that momentum the Shelburn Farms, an NGO active in EE and ESD and the school staff started to turn the school to an ESD school and for that the massive involvement of the parents and local community was gained. In the United Kingdom the local authority planned to renovate the school building, and a consultant identified the momentum and helped to engage students in designing and turning it to a more environmental friendly building via cooperating with several organizations.

WHEN to begin?

Appropriate Timing is an important issue to consider. For schools, ideally, timing needs to be adjusted to the school's time schedule. Starting at the beginning of the new academic year gives the collaboration activities enough time to develop and spread along the school year and allows sufficient time for careful planning and successful implementation of the activities. Collaboration cycles can allow for breaking down the objectives and activities, facilitating assessment and leading to slower but deeper change.

Sometimes at the beginning there is no conscious planning and when the collaboration continues it is useful "breaking down the objectives and activities, facilitating assessment and leading to slower but deeper change." *The case of Algyő Elementary School shows that investing extra time and energy participating in action research, as well as consciously planning and delivering project activities resulted in a massive change. They highlight that developing the success criteria collectively by the research leader, the teachers and the teacher students, was one of the success factor of the collaboration itself.*

WHEN - Time management

When school community ESD collaboration is integrated into school activities plans and ordinary work load (school time) it can be an encouraging factor for the teachers to participate (Czippan, Varga and Benedict, 2010). Vacation periods could mean pausing the collaboration activities due to everyone being on holidays. On the other hand, if everyone has some free time to spare, it can be an excellent opportunity for strengthening the common vision, team building and ownership development.
"When the collaboration is integrated into school activities plans and ordinary work load (school time) it can be an encouraging factor" *is underpinned when the Algyő school mentions as one of the success factors that the programmes they have developed in collaboration and based on collaboration, appeared in their pedagogical programme.*

WHEN – Pace and Sequence of Actions:

Developing and implementing School Community Collaborations follows a sequence of actions. Identifying the issue to be tackled, running a needs' assessment, establishing the focus and developing an action plan is a process that needs sufficient time and resources (Czippan, Varga and Benedict, 2010). The pace of implementation should allow for quality on one hand and ensure at the same time that all ideas and visions are not going to wear out and "gather dust" Koontz (2006).

Available meeting time (suitable for the school and the community partners) should be also ensured for planning and implementation as this would develop a common vision, ownership and avoid any misunderstandings due to insufficient communication.
Evaluation should progress in parallel with the development and implementation of the collaboration (formative) so as to readjust action for optimum results. Summative evaluation in the end of the activities will highlight the collaboration's success.
In Algyő "common meeting time" *has been ensured yearly by both the local authority and the school e.g. in the green pupils parliament and regularly by partner organizations from the community in different programmes, actions in and outside the school.*

WHEN - For how long?

The extent can vary according to the SD issue that schools and communities focus on. Collaboration is a process and it takes time to develop (Czippan, Varga and

Benedict, 2010). Long term collaboration can ensure that the process follows a suitable pace for the outcomes to sink in (especially when attitudes and values are involved), for the activities to be successfully implemented and for revision and evaluation to take place. This process also ensures the quality and durability of the outcomes and leads to real and lasting change. Financial implications of duration can be a challenge.

"Collaboration is a process and it takes time to develop": *The case of Algyő Elementary School in Hungary shows that it is worth investing into co-operations for years. The collaboration started with a regional NGO who had strong relation to a teacher training university. The school became practicing school for teacher students, than a board member of that NGO carried out the action research in the school and as a result of those harmonized actions for more than 20 years the school plays an active role in the local community and vice versa.*

WHEN does it reach closure? Ensuring Continuation

Ideally collaboration should never come to a closure. The cycle of the collaboration for resolving a specific issue and achieving specific targets could come to a closure, although at that point the maintenance issues arise. Therefore after closure, maintenance activities should occasionally take place in order to provide longevity to the practice.

The case of Sorrila schools is a good example that "after closure, maintenance activities should occasionally take place". *They highlights that* "the change was not seen until after a few years". Later „the school curriculum was developed by the local cooperation. Students, parents and the whole school community felt Sorrila was a real ESD-school. The key word for Sorrila is balance: acknowledging the objectives for sustainable school but developing the school in the speed and intensity that gives the school comfort in pace.

Action research of an eco-school's development with the benefit of renewing teachers training

School: Algyő Primary School, Location: Algyő, Hungary
Partners: University of Szeged – Juhász Gyula Teacher Training Faculty, CSEMETE – Association of the Conservationist of Csongrád County
Authors: Zsuzsanna Iván, Julianna Nagy B, Katalin Czippán
Contact Person: Zsuzsanna Iván, ivanzs@freemail.hu
More information about the school: *http://www.algyoiskola.hu/*

Journey in the Landscape of Sustainable School Development

The School: Sorrila School, primary school, with about 400 7-12 years old students;
Location: Valkeakoski, Finland
Partners: University of Helsinki, local companies, NGOs and authorities
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Chapter seven: where

Where do mutual learning and efficient work occur? What are the common qualities of such arenas?
Where (in what environments) can we inspire mutual exchange and guarantee efficient work?

Before entering school-community collaboration, it is worth considering the features of the environment where project work and learning are to happen. The **'Theory box'** introduces the concept of legibility, which improves pace attachment and increases the number of interactions: in this way it contributes to a better way of engaging partners in active participation and maintains their dedication.
'Benefits' are collected from an architects' point of view. This section offers hints on how to create a balance between the various requirements brought about by different project work phases. It also shows some approaches to spatial design that can make diverse working and learning needs more manageable.
In the section **'Challenges',** inclusion and creativity are addressed. Some guidelines are offered for establishing environments that support collaboration from these perspectives.
Finally, the **'Exemplar case'** shows how visits to other places can inspire further thinking and shares some concerns about collaboration through an insight to the British project "Building Schools for the Future". In this research project students were engaged in the design of their new school buildings.

Theory box

Edit Lippai

Legibility is a concept from the 1960's architecture, which became very popular in the human-environment research in the 21th century. Bell et al define it as *"the degree to which a scene is distinctive or memorable"* and legibility in cognitive maps is *"the degree to which an area is easily learned or remembered"* (Bell, 2001).

The concept of legibility is created by Kevin Lynch. His primary method was to ask environment-users to draw a sketch map of their city. These maps provided a rich source of data. Both similarities and difficulties in cognitive maps (which are our internal representations of the world (Golledge, 2002)) were very informative about the connection between people and their environment. Lynch (1960) showed widespread interest in understanding the formation and use of human's cognitive maps and was among the firsts in his field to try to understand people's feelings about the quality of their environmental design. After data collecting he has analysed maps which people had drawn, and found five categories of features could be used to describe cognitive maps: paths, edges, districts, nodes and landmarks.
Lynch's categories offer us help to construct a useful cognitive map: those spaces that are easily re-constructed in our minds using these five elements are called legible spaces.
There are evidences that suggest that legible designs contribute to better learning outcomes as legible spaces help the brain develop in the same areas that are crucial to making algorithms and also play an important role in storing and recalling memories (Holahan, 1986).
Legible buildings make users feel more secure, which is an important factor especially with young age groups. Presenting the space to users is a key element of legibility. Surprisingly enough, in our research we found that even in schools with the best practices teachers are not aware of the importance of the presentation process and they hardly ever applied direct and indirect means consciously.
Legibility can also be increased with little cost, for instance by clearly marking paths, edges and districts (using different materials, floor marking or wall colours, for example), creating landmarks (by placing something "remarkable" in a node). Improving legibility can result in better place attachment. This means that people using the given physical space are more willingly get involved in, participate in actions and are less likely to be absent!

Benefits

Anna Losonczi

The learning arena as well as the working environment for collaboration partners provides more than a mere scene where actions occur. They frame processes, determine approaches, inspire ideas, facilitate roles, bring about opportunities and structure the physical space as well as collaborative patterns and people's perception, their reactions and thinking. Consciously planning the scene for different phases of project work can result in more efficient work and better engagement.

Appropriate application of distinct environments can lead to successful processes in collaboration.

Collaboration in collective projects have alternating phases of orientation (collecting information) and elaboration (focusing on a specific problem). Phases of a thriving process require partly contradictory environments in terms of the provided opportunities for encounters. "Inspirative-creative" and protected environments suit different phases of project work. What are the distinctive characteristics of these „inspirative–creative" environments? What do protected environments look like? In the following paragraphs you will find some basic ideas on these, from the perspective of architecture and environmental psychology.

1. Sources for ideas and exchange: „inspirative–creative" environments

Outlining the exact subject of the collaboration, finding the best-fit partners or being aware of the opportunities and risks of the topic all need an open and inclusive attitude. This open-minded observation period requires a particular type of environment. The concept of places that generate inspiration appeared in the 1970s' in discussions about design of company headquarters and workplaces that require creative work. (Herzberger, 1975, "Advertising City" project)

The leading idea of inspirative-creative environments is indirect observation and indirect ways of collecting information. These require an environment providing a range of opportunities for coincidental encounters with people, situations and surrounded objects. Design applications are experimenting with a functional layout that is mixing private and common areas creating alternative approaching routes generating a wide range of situations for these particular encounters (The Japan Architect 2003).

Density, variety and scattered geometry of inspirative-creative places and isolated silent spots

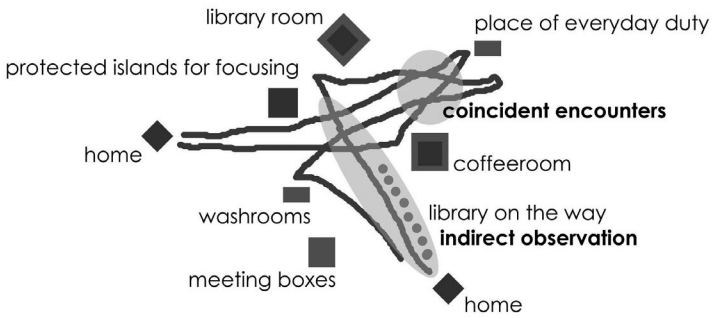

Figure 5

2. Undisturbed, concentrated work guaranteed by protected environments

Orientation needs to be followed by a period where interest and attention turns into being focused on the collaborating partners and the topic set up. Clarifying aims, clearly expressing our thoughts, elaborating on topics, sharing and deepening our knowledge and being effective in problem-solving call for an environment that excludes information which is not in line with the topic and that provides a remote, isolated space that helps fine-tuning ideas.

Contrary to the needs described above, richness of random information is not prosperous in periods of focusing. A common adaptation in creative workplace design is setting up isolated glass boxes scattered around in the creative area, providing calm shelters for individuals and groups for deepening the topic with an optional visual contact. Considering the issue of noise and the need of visual contact, small rooms or areas separated with parapet walls may also work well. Even a piece of carpet can serve as a boundary if the intention of "please do not disturb" is clear.

3. Two (or more) in one solution: open observation and focused attention in the same place

City structures suggest possible solutions on how to balance between different needs for creating appropriate environments for collaboration. In short: a city is a perfect metaphor as a place for indirect encounters with people, situations and surrounded objects helping in the period of observation-orientation for the collaboration.

Spatial and interior design influence the efficiency of work and the commitment of people.

Some office design projects take the structure of the city as a model and try to apply the idea of "the street" to the workplace plans. ("Advertising City" project)

Cities are not just models, of course. The city itself offers an ideal place for collaboration as the city structure usually provides the desired mixture of functions and approaching routes (for instance any traditionally grown European city or New York City structure (Jacobs, 1992)). Protected private areas are scattered around in the network of public places used by everyone (Kádár, 2012): protected environment spots (facilitating concentrated work and focused attention) are embraced by inspirative-creative environments (serving as sources for ideas and increasing openness). This means that cities themselves provide learning arenas that can be used in various phases of project work.

Besides coffee-rooms for example, public places in the city are also appropriate meeting places. It is worth considering where to place the discussions and the working area of the collaboration project in a given scene: in other words, how can *we take advantage of our city structure itself?*

Spatial relations of places and approaching routes

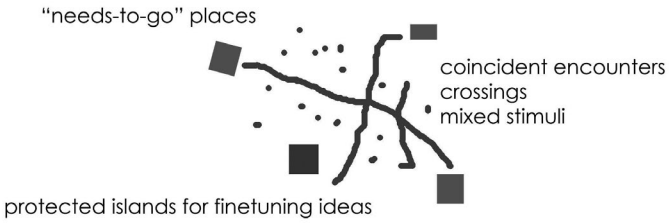

Figure 6

Environments expected to generate collaboration need a network of inspiring spaces eligible for coincidental encounters and need isolated silent spaces scattered around inside the flowing "creative" area. The mixture of the two kinds of environments give the opportunity to find the best-fit partners and outline the most up-to-date topics as well as give the opportunity for concentration and processing information both individually and in groups.

The design of these environments need to consider legibility (Lynch, 1960), and people need to have a clear understanding of private and public accesses, spatial competencies, types of functions. In this way, individuals and groups involved in the collaboration have the opportunity to experience periods of observation and periods of concentration according to the desired rhythm of the project.

Building the environment by the community

In the main text we are searching for environments that encourage collaboration providing appropriate background for it. "Collaborative group – Environment" relationship raises another aspect: Can we think about the environment itself as a tool for collaboration? How can environment play the major role in bringing people together?

The sense of a group or of the community is evolving by common activity aiming common concerns or interests. Residential communities or groups using the same environment need to develop collaborative attitude.

There is a practice for bringing people together using the environment itself as a tool for collaboration: community construction and participation are ideas and well-functioning methods that are going back to historical times but have a boom in contemporary architecture.

The first concept refers to a community labour work activity that is building its own environment together. The second one refers to the participation of community members in the planning and design as well.

Research and practical experiences in this field strengthen the idea that the communities involved in the design or in the construction of their own environment show a high level of collaborative attitude among people taking part in the process. It results in a stable bond, establishes long-lasting basis solving further problems as well. (Open Air Library, Evergreen Brick Works, and "Hello Wood" project)

Challenges

Judit Juhász

In school-community collaborations mobility and innovation play an integral role which should be reflected in the learning and also in the working environment. In such multi-featured processes the environment also need to adapt to challenges brought about by different project phases, working sessions and learning occasions. The key concepts supporting this approach include openness, mutuality, sustainability and transparency.

For fruitful collaborations, partners need to be invited, comforted and supported. In other words, we need inclusive places for that. Also, for such a work, partners need ideas and they might often face non-routine problem situations: these raise the need for a creative, innovative approach. Creating inclusive spaces and supporting creativity are key challenges for collaborative partners. It is significant to provide the opportunity for students to be socialized in inclusive learning areas which give scope for both individual and social learning processes. Besides, these learning arenas teach the work flow of co-working and knowledge transfer as well as the openness and interoperability between the different disciplines, as referred to in chapter 'Why'.

Creativity is the basic characteristic of this process and a number of approaches exist in its definition. In principle, the one commonly used in psychology was

created by Guilford. It states that creativity is a creative ability which allows people to connect an isolated experience with innovative interpretation and new forms of appearance (Guildford, 1950). Creativity means something unusual, and the creation of something new involving creative thoughts, technological or artistic products, which process plays an important role in identifying and solving (especially non-routine) problems, as well as cooperation and communication with others. Educational institutions are challenged to provide space for processes developing and involving creativity, which is a priority for collaborative opportunities.
Environments need to provide the necessary conditions for this, supporting and promoting knowledge-sharing and a community-based approach. The following criteria might be considered when choosing, designing or transforming a proper environment responding to these challenges.

Aim: creating a place for the students, where appropriate conditions are provided in order to prepare for classes, for both individual and group learning tasks as well.
Selection of the place: in an educational place where the community is essential, the selection of place plays an important role. Substantial question of where is it located, because it is important that users have easy access to it.
Outdoor elements: the use of space needed to move walls and to separate working areas and elements which allows anybody to work and to have control over their own working pace and environment.
Material elements: it is important that the user has the feeling of comfort and for that it is required to provide material elements such as tables, chairs, technical equipment as well as components which promote the attention restoration and the feeling of the sense of familiarity.
Rest area: during the learning processes the attention restoration plays an important role because effective work requires attention recovery. It is important to ensure a place for relaxation.
Technology: technology means power outlet, internet access, projector, table, sound system, computer programmes, so all props to the individual and the community allowing accessible work for students.
Mood elements: it is important to establish the proper (a unique) atmosphere of the educational place. It is not necessary to have design elements however the central question is that if the place creates or reflects the spirit of the location.

The list above, which is not complete as needs of user groups are endless, but which nevertheless include some key elements, is a result from my thesis research examining the physical conditions of future-leading learning arenas.

Exemplar case

Mark Lemon

The background: Building Schools for the Future (BSF) was a nationwide UK programme that was initiated in 2006 and terminated in 2010 with the aim to rebuild and or refurbish all secondary schools in England. The where of BSF can be seen as originating and terminating in Westminster with central government but its implementation and impact span the UK with local relevance for schools and communities and the stakeholders within each group.

The project: "Engaging Pupils, Teachers and Governors in 'Carbon Neutral' Schools". At the heart of BSF was a requirement to engage with pupils in the development of a vision for their new or refurbished low carbon school. The Engaging Pupils project had three central aims: to raise awareness and understanding surrounding the design, construction and operation of low energy school buildings; to enable the school community to have informed discussions with their peers, and the design team and to increase pupils' interest in science and engineering. Four core activities were undertaken to meet these aims; each with its own particular spatial and locational characteristics.

IN - With £2.2 billion being invested in the scheme in its first year, there is no doubt that this scheme will bring major changes to the way secondary education is delivered in this country. Those changes will see some schools becoming more than just schools. The BSF schools are intended to be integral parts of the communities they serve. (Teaching Expertise)
OUT - Announcing the move, Michael Gove, the Education Secretary, described the Building Schools for the Future programme as bureaucratic and wasteful. (The Telegraph (05/0710)

Question - WHERE DOES THE POWER RESIDE?

Sustainable Development Workshops
Pupils and their teachers are introduced to issues surrounding climate change and five key principles of designing a new or refurbished school e.g. site orientation and natural day lighting.

The workshops took place in schools and the partner university – the where is both the location for the activity and topics being explored i.e. designing the school.

Learning arenas are not restricted to school or classroom; indeed it is often beneficial to get students out of classroom.
Pupils respond particularly well to ESD when they are given the opportunity to take part in practical activities within and outside the classroom that enable them to research, plan and implement projects that make a clear difference to the school and the local community (Ofsted, 2009).

I liked the tour of Beaumont Leys School (it gave me lots of ideas for what we should do in our school). (Paris, 13)
... the trip to Judgemeadow – was great - seeing what the other schools have done to improve their school. (Chandresh, 13)

Inspirational Visits to existing Low-Energy Schools
Pupils, teachers and governors are taken on visits to existing low-energy schools to visualise what is possible and identify those aspects that they would and wouldn't like to be included in the design of their own schools.

Designing a Low-Energy School
Pupils are given the opportunity to work with experts in low-energy building design to create concepts for their own low-energy school. Once their ideas have been formalised they then record their ideas using a variety of multi-media including video, posters, podcasts, presentations, web pages and newsletters – where and how is the design and design process recorded?

Presenting and Communicating
Pupils present their ideas for a low-energy school to their peers and teachers through assemblies, class presentations, securing an article on the school website or newsletter and / or having a dedicated slot on their school radio station. A meeting with the school design team is also facilitated during which pupils get to have informed discussions with architects, designers and members of the city council surrounding the design and operation of their low-energy school. One particular group of pupils were able to present their ideas to a group of 50 professionals at the Education and Building Development Officers Group (EBDOG) annual conference – the project adopted multiple locations and mechanisms for communicating output.

Problem: The challenges of working across and between different stakeholders. The project could attract teaching assistants, bursars and premises officers but not many teachers

Solution: Undertake a small scale pilot project to anticipate challenges; follow the teaching and learning framework (e.g. critical thinking through the Enquiring Minds Framework).

Problem: The financial costs and practicalities of getting people together and lack of technical support.
Solution: The project used City Learning Centres (initiative to provide high quality multi-media experiences with technical support).

Chapter eight: basics

Sustainable Development and Education for Sustainable Development

Mauri Åhlberg

In this chapter you can find more information about how sustainable development is connected to education, what education for sustainable development (ESD) is about and how policy documents address these important issues.

The three basic aspects of sustainable development

UNESCO is the lead agency for the UN Decade of Education for Sustainable Development (UNDESD 2005-2014). UNESCO defines sustainable development (SD) as follows: "Sustainable development is the overarching paradigm of the United Nations. The concept of sustainable development was described by the 1987 Brundtland Commission Report as *"development that meets the needs of the present without compromising the ability of future generations to meet their own needs. There are four dimensions to sustainable development – society, environment, culture and economy – which are intertwined, not separate. Sustainability is a paradigm for thinking about the future in which environmental, societal and economic considerations are balanced in the pursuit of an improved quality of life. For example, a prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clean air for its citizens."*
(http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-sustainable-development/sustainable-development/ Retrieved Jan 31, 2012)

Those who know the original documents wonder why four pillars, because in the original Johannesburg agreement (Johannesburg 2002) there were only three pillars. In the beginning of the UNDESD, in 2006, UNESCO Education Sector published Framework for the UNDESD International Implementation Scheme. On the fourth page: ***"This plan presents three key areas of sustainable development – society, environment and economy with culture as underlying dimension."*** Then the first three areas are defined. Culture as underlying dimension is defined later in the text: *"... culture is not just a collection of particular manifestations (song, dance, stress, ...), but a way of being, relating, behaving, believing and acting through which people live out in their lives and that is the constant process of change."*

Knowledge and understanding are often deepened, when the history of ideas are studied. In Johannesburg Declaration (United Nations 2002a) the three components

are clearly highlighted: *"5. Accordingly, we assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development - economic development, social development and environmental protection - at the local, national, regional and global levels."* In the preparatory document of Johannesburg conference (United Nations 2002c) the three key areas of sustainable development were described as follows:
"Economic Growth and Equity *– Today's interlinked, global economic systems demand an integrated approach in order to foster responsible long-term growth while ensuring that no nation or community is left behind.* ***Conserving Natural Resources and the Environment*** *– To conserve our environmental heritage and natural resources for future generations, economically viable solutions must be developed to reduce resource consumption, stop pollution and conserve natural habitats.* ***Social Development*** *– Throughout the world, people require jobs, food, education, energy, health care, water and sanitation. While addressing these needs, the world community must also ensure that the rich fabric of cultural and social diversity and the rights of workers, are respected, and that all members of society are empowered to play a role in determining their futures."*

Education for Sustainable Development

In the Johannesburg report of the World Summit on Sustainable Development (United Nations 2002b, 61), the importance of education is clearly expressed:
"116. Education is critical for promoting sustainable development." and *"121. Integrate sustainable development into education systems at all levels of education in order to promote education as a key agent for change."*

In the final documents of the Rio de Janeiro 2012 World Summit (United Nations 2012b) again three basic pillars/key areas are listed. The future, sustainable future, is now highlighted:

"I. ***Our common vision***
1. We, the Heads of State and Government and high-level representatives, having met at Rio de Janeiro, Brazil, from 20 to 22 June 2012, with the full participation of civil society, ***renew our commitment to sustainable development and to ensuring the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations."*** (Highlighted by Mauri Åhlberg).

These three dimensions are called also aspects of sustainable development (United Nations 2012a, 1):

"We therefore acknowledge the need to further mainstream sustainable development at all levels, integrating economic, social and environmental aspects and recognizing their interlinkages, so as to achieve sustainable development in all its dimensions."

Biodiversity Education as a foundational part of ESD

Conservation and the sustainable use of biodiversity have been highlighted from the World Summits of Stockholm 1972 to Rio de Janeiro 2012 (United Nations 2012a): *"**Biodiversity** 197. We reaffirm the intrinsic value of biological diversity, as well as the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic **values of biological diversity and its critical role in maintaining ecosystems that provide essential services, which are critical foundations for sustainable development and human well-being."*** (Highlighted by Mauri Åhlberg.)

Biodiversity education, including identification of local species is a foundational part of education for sustainable development. United Nations has declared United Nations Decade on Biodiversity 2011 – 2020 (United Nations 2011).

The history of Sustainable Development thinking from Stockholm 1972 to Rio de Janeiro 2012

The history of World Summits - Stockholm 1972, Brundtland 1987 (WCED 1987), Rio de Janeiro 1992, Johannesburg 2002, Rio de Janeiro 2012. According to the United Nations (2012b):

(1) 1972: *"The concept of sustainable development dates back a long way, but it was at the UN Conference on the Human Environment (Stockholm, 1972) that the international community met for the first time to consider global environment and development needs together."*

(2) 1987: In the 1980s the UN set up the Commission on Environment and Development, also known as the Brundtland Commission, named after its Chair Gro Harlem Brundtland. The outcome of the Brundtland Commission was a comprehensive document entitled „Our Common Future", otherwise known as the Brundtland Report. This report framed much of what would become the 40 chapters of Agenda 21 and the 27 principles of the Rio Declaration on Environment and Development. The report defined sustainable development as development which: „meets the needs of the present generation without compromising the ability of future generations to meet their own needs."

(3) 1992: The 20th anniversary of the Stockholm Conference on the Human Environment took place in 1992 in Rio de Janeiro. The UN Conference on Environment and Development, the „Earth Summit", agreed to Agenda 21 and the Rio Declaration."

(4) 2002: *"Stakeholder Forum and a number of governments worked from 1998 to 2000 to create momentum for an Earth Summit in 2002. South Africa hosted the Summit, beating South Korea, Brazil and Indonesia in the process. ... the Earth Summit 2002 preparations were undertaken well in advance of the Summit, at local, national, sub-regional, regional and global levels. There was considerable optimism and faith in the Summit's ability to get the sustainable development agenda back on track. ... The Summit also saw an increased ratification of environmental conventions, thus significantly strengthening international environmental regulation, first identified as necessary in Rio in 1992."*

(5) 2012: *"Background... The world is facing a mounting crisis. In recent years we have experienced a combination of a global financial crisis, a food crisis, volatile oil prices, accelerating ecosystem degradation and an increasing number of climate-induced extreme weather events. These multiple and inter-related crises call into question the ability of a growing human population to live peacefully and sustainably on this planet, and demand the urgent attention governments and citizens around the world. The **Earth Summit 2012** will be the **fourth Summit** of its kind and represents another milestone in ongoing international efforts to accelerate progress towards achieving sustainable development globally."*

Difference between ESD based on history and the definition of EE

UNESCO (2006, p. 17) has clearly expressed that Environmental Education (EE) is not the same as Education for Sustainable Development (ESD):

"Education for sustainable development should not be equated with environmental education. The latter is a well-established discipline, which focuses on humankind's relationship with the natural environment and on ways to conserve and preserve it and properly steward its resources."

The most important document for international environmental education is the Tbilisi Declaration (1977). The world's first intergovernmental conference on environmental education (EE) was organized by the United Nations Education, Scientific, and Cultural Organization (UNESCO) in cooperation with the UN Environment Programme (UNEP) in Tbilisi, Georgia (Soviet Union) in 1977. In the Tbilisi Declaration (1977, 25) EE was defined very broadly, but not in the similar focused and integrated way as is ESD for UNDESD (2005 – 2014):

"Recommends the adoption of certain criteria which will help to guide efforts to develop environmental education at the national, regional and international levels.

1. *Whereas it is a fact that biological and physical features constitute the natural basis of the human environment, its ethical, social, cultural and economic dimensions also play their part in determining the lines of approach and the instruments whereby people may understand and make better use of natural resources in satisfying their needs.*
2. *Environmental education is the result of the reorientation and dovetailing of different disciplines and educational experiences which facilitate an integrated perception of the problems of the environment, enabling more rational action, capable of meeting social needs, to be taken.*
3. *A basic aim of environmental education is to succeed in making individuals and communities understand the complex nature of the natural and the built environments resulting from the interaction of their biological, physical, social, economic and cultural aspects, and acquire the knowledge, values, attitudes, and practical skills to participate in a responsible and effective way in anticipating and solving environmental problems, and the management of the quality of the environment.*
4. *A further basic aim of environmental education is clearly to show the economic, political and ecological interdependence of the modern world, in which decisions and actions by the different countries can have international repercussions. Environment should, in this regard, help to develop a sense of responsibility and solidarity among countries and regions as the foundation for a new international order which will guarantee the conservation and improvement of the environment.*
5. *Special attention should be paid to understanding the complex relations between socio-economic development and the improvement of the environment."*

There are environmental educators and researchers (e.g. Stevenson, R., Brody, M. Dillon, J. & Wals, A. (Eds.) 2012) who claim that EE is broader than ESD, but they cannot change the research based political decisions made in United Nations and in UNESCO and in the four World Summits (1972 – 2012). After all education is a political activity, best when promoting worthwhile learning for sustainable development of humankind and the biosphere.

The basic points of this introduction are presented in a concept map (Fig. 7).

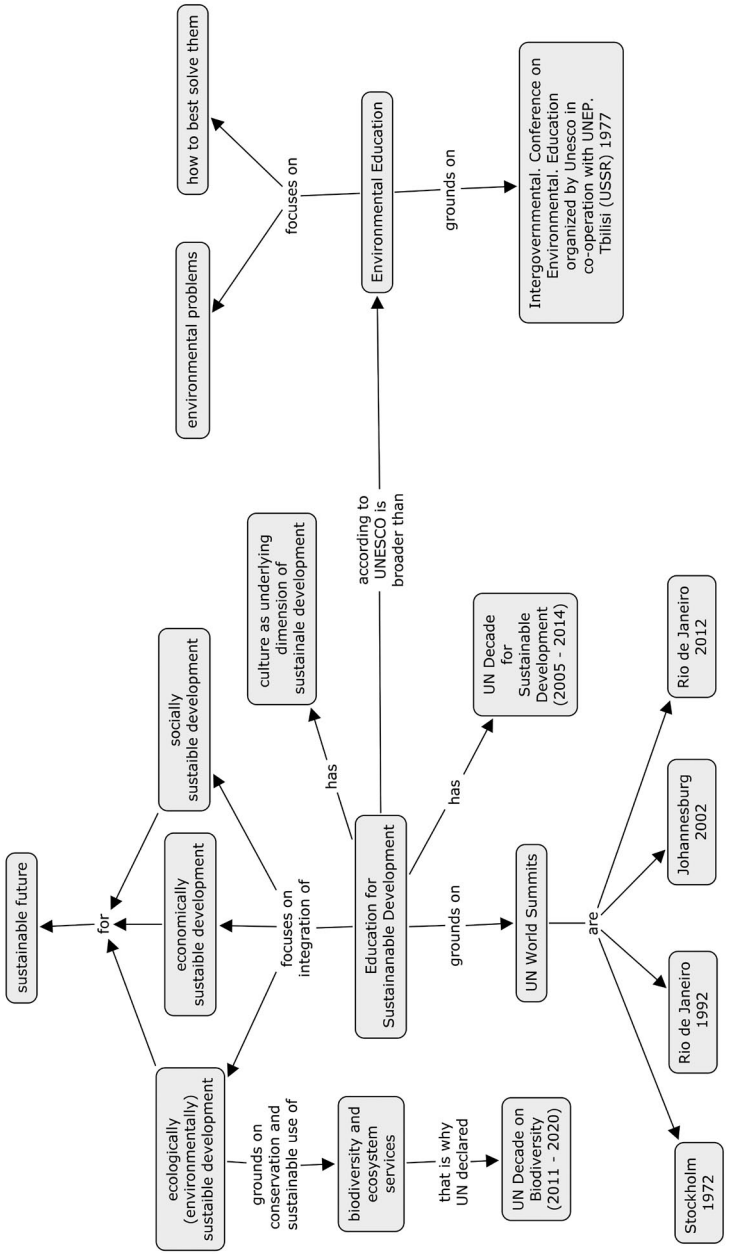

Figure 7. The main points of the introduction as a concept map.

Leading questions for your planning, running and the evaluation of a collaboration project

For the planning phase you may ask yourself and the partners:

1. What are the **benefits** of school-community collaboration? What is in it for you, what's in it for me?
2. How can we benefit from the students' point of view?
3. Which are **common aims** and values of the partners and what are the **differences** between the partners?
4. How to make sure that that you **interpret the common goals** clearly and in a way that all partners mean the same?
5. How is **communication** installed in the collaborations (Communication towards the public and internal communication)?
6. Who will be the **contact person?** Who else do they communicate with during the collaboration?
7. What are the **available resources and competences** from the collaborative partners?
8. How do we organise **systemic reflection** and communication on processes concerning the project work towards sustainability?
9. How can we integrate and make meaningful use of the **environment**? Such as: Is the village or city context for the project?
10. What is the **added value** of this learning arena (outdoor/village/city) compared to the classroom?
11. How can we **create learning** arenas in and outside the school?
12. When is the **best time to start** collaboration (in the school year, in the business year, other criteria)?
13. How much **time** do I need **to establish** the collaboration?

While running the project, some of the following questions might be relevant:

1. Who has **leadership qualities within the collaboration** (Implicit and explicit qualities)? Are they actual leaders and how can they be supported?
2. How do we **benefit from the student's point of view**?
3. How do my **personal goals** harmonise with the common (declared, shared) goals of this collaboration?
4. Does the **communication work** (communication towards the public and internal communication)?
5. What is the **best time to go public** with our activity?
6. What are **the signs** that this collaboration includes and respects all partners' viewpoints and knowledge?
7. How does the **environment** itself become a tool for collaboration? How can it play a role in bringing people together?
8. How do and how could we **benefit from or transform the physical environment**?
9. **How long** should collaboration last? What are the criteria **for the end** of the collaboration?
10. Are the actions underpinned by a s**hared understanding** of our main topics including sustainability?
11. Can we stick to the **commitments** agreed at the beginning?

In order to reflect on past and next steps, you may discuss the following questions:

1. How did/do we **benefit from the student's point of view**?
2. How to ensure that there is a regular **renewal** of partnerships and ensure that we avoid outdated programmes?
3. How have **the internal structures** of the collaborating partners been taken into account during the project work and its planning?
4. Why would people be **motivated** enough to work collaboratively in a new project?
5. Can I identify reasons, benefits or gains, at a personal or institutional level, for the **continuation** of the collaboration?
6. What are the goals or topics that can **only be achieved in the long run**?
7. What are the **learning points for a community**, what are the learning points for a school?
8. Which **new questions** emerge from the experiences of the collaboration?

Suggested reading and further references for theory boxes:

Chapter 2 WHAT

Agenda 21: United Nations Conference on Environment & Development: *http://sustainabledevelopment.un.org/content/documents/Agenda21.pdf*

McKeown, R. (2002). Education for Sustainable Development Toolkit: *http://www.esdtoolkit.org*

Quality Criteria for ESD-Schools: *: http://www.ensi.org/media-global/downloads/Publications/208/QC-GB.pdf*

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TRAVELLING GUIDE
Practitioners guide to school and community collaborations for sustainable development

The publication ‚Travelling guide' is meant to instigate new collaborations and encourage those already on the way. It will inspire readers to reflect on some aspects of the learning journey schools and communities take when engaging in a collaboration for sustainable development.
The book is organised around basic questions: what, who, why, how, when, where. These chapters each include a ‚Theory Box', highlighting one specific point from research that could probably enhance collaboration practice. ‚Benefits and Challenges' elaborate on practical details to consider, illustrated by an ‚Exemplar case', which presents experience from collaborations within CoDeS multilateral network. All contributions have been provided by CoDeS partners, illustrating the important link between taking action and reflective, critical thinking.

Lifelong Learning Programme

CoDeS is a Comenius multilateral Network with the support of the Lifelong Learning Program of the European Union